OLD ENGLISH ABCs: ON THE ORIGINS AND DEVELOPMENT OF THE OLD ENGLISH ORTHOGRAPHIC SYSTEM AND ITS RELATIONSHIP TO OLD ENGLISH PHONOLOGY

by

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A B S T R A C T

Old English ABCs: on the origins and development of the Old English orthographic system and its relationship to Old English phonology

In the opening Chapter of the thesis, various possible approaches to the reconstruction of Old English phonology are considered. Of the five types of approach normally employed, it is concluded that the limitations and drawbacks involved in using orthoëpic, metrical, contact and comparative evidence, mean that only the fifth approach, that which makes use of the evidence of Old English spelling itself is direct and reliable enough to be used in the reconstruction of Old English phonology. An examination and critique of traditional approaches to the interpretation of Old English spelling data, as well as traditional means of presenting findings are then offered. The notion of a 'standard' Old English is questioned, in the context both of Old English spelling and of Old English dialects.

In the light of the findings of these Chapters, a new approach to the interpretation of Old English spelling is offered. This is based on (1) a taxonomy which establishes, by examining spelling usage, the principles and procedures of the spelling system and (2) the external and linguistic circumstances surrounding the origins of Anglo-Saxon literacy and the Old English spelling system. For (2), details and results of direct and indirect language contact between Pre Old English, Early Old Irish and Late Latin/Early Romance are given and discussed. The influence of the latter two languages on the spelling~sound correspondences chosen and established for the eventual writing-down of Old English is then investigated by means of the reconstruction of 7th century sound and spelling systems for both. After an examination of the methodology pertaining to the genesis of a spelling system, this Latin and Old Irish 'supply' is then compared with the 'demand' of the reconstructed Pre Old English sound system. Preliminary findings are presented, followed by a corpus of the earliest Old English spelling data, together with a detailed proposal on how these might best be analysed to gain information on the relative degrees of adoption and adaptation of the Roman-letter alphabet necessary for the writing-down of Old English, the relative degrees of influence exercised by Latin and Old Irish spelling traditions on Anglo-Saxon approaches to spelling, the Old English spelling system itself and Early Old English phonology.

This thesis is entirely my own work.

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CONTENTS

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ABBREVIATIONS

Unless specified here, abbreviations used are conventional ones, such as e.g. for 'for example'.

Languages and Dialects

Angl	Anglian
CL	Classical Latin
EME	Early Modern English
ER	Early Romance
Gmc	Germanic
GR	Gallo-Romance
Go	Gothic
IE	Indo-European
IL	Imperial Latin
IR	Italo-Romance
Ital	Italic
Kt	Kentish
ME	Middle English
LL	Late Latin
Ltn	Latin
Merc	Mercian
Nb	Northumbrian
OE	Old English
OFrs	Old Frisian
OHG	Old High German
OIr	Old Irish
ON	Old Norse
OS	Old Saxon
PE	Present-day English
Skt	Sanskrit
WS	West Saxon

Miscellaneous

c.	circa
C(C)	Consonant(s)
Ch(s)	Chapter(s)
DHH	Diphthong Height Harmony
e	early
E	East(ern)
esp.	especially
fn(n)	footnote(s)
IPA	International Phonetic Alphabet
l	late
L	Liquid consonant
M.S.	Morphological Structure
MS(S).	Manuscript(s)
n.d.	no date
N	Nasal consonant
N	North(ern) (from the context of use, it is plain when N for *North* or *Northern* is meant)
p(p).	page(s)
Pr	Primitive
Pro	Proto
P.S.	Phonological Structure
S	South(ern)
Son	Sonorant
V(V)	Vowel(s)
W	West(ern)
W.S.	Word Structure

NOTATION and SYMBOLS

The notation employed throughout this work (except when quoting other authors' usage directly) is as follows:

/ /	enclose phonemes.
[ ]	enclose allophones, but are used more generally to enclose broad phonetic values without commitment to phonological status.
< >	enclose attested spelling forms or individual graphs.
Italics	examples/forms being discussed are cited thus.
{ }	enclose individual morphemes, morpho-phonemes, or morphological structures and may, depending on the form inside appear doubled. These brace brackets are used also to enclose disjunctive, or alterative elements.
// //	enclose archiphonemes (themselves represented by a capital letter).
[[ ]]	enclose archiallophones (cf. Ch. 3).
' '	enclose definitions of words.
→	becomes/develops to.

←	derives/develops from.
⇒	means 'hence'.
:	can mean 'represented by/represents', in addition to marking vowel length in phonological transcriptions.
~	correlates/correlating with.
$	syllable boundary.
†	morpheme boundary.
#	word boundary (either word-initial or word final).
/	signifies that a phonetic context will follow, e.g., /#- means 'word-initial'.
≠	means 'contrasts phonemically with'.
σ	syllable.
Σ	foot.
α	is used for the low back vowel [ɑ].
ω	is used for the high-mid centralised vowel [ɒ].

CHAPTER 1:
APPROACHES TO RECONSTRUCTION

1.1 *OLD ENGLISH PHONOLOGY: A FRAME OF REFERENCE*

Old English is the name of the Germanic language spoken in various parts of Great Britain between c. 450 A.D. and c. 1100 A.D.. At least four dialect varieties of this language are thought to have existed - West Saxon (in which the largest number of texts in Old English survives), Northumbrian, Mercian and Kentish. Campbell (1959: §§6-22) provides information on these dialects and the texts in which they are written, though it should be noted, in the light of Hogg (1988) and Colman (1988b), that Campbell's §6 assertion that "four well-marked dialects are to be traced" from this textual evidence seems over-confident; his later statement (§19) that "it is not possible to draw a dialect map of England in the Old English period" seems nearer the mark (cf. also §2.3.4 below). The Old English language is one of the Anglo-Frisian subgroup of West Germanic languages (the latter themselves descendants of a Proto Indo-European parent language) - for further details, see for example, Campbell (1959: §§1-6), Lass (1987: 9-20), Prokosch (1939: §§1-3, 6-7) and Quirk and Wrenn (1957: §§1-3).

Attempts to recover, or reconstruct the phonology of Old English - a language no longer spoken, but surviving to us in various written records (such as manuscripts and runic- or Roman-letter inscriptions) - may be made by several means. Penzl (1969), though his paper is concerned primarily with the evidence for historical phonemic changes and its interpretation, provides a useful guide to putative sources of evidence and methods for phonological reconstruction of languages of periods earlier than the present-day. The sources he gives, aside - for the

present (cf. Chs. 2 & 3 below) - from the examination and synchronic analysis of spelling, are these:

Orthoëpic Evidence;

Metrical Evidence;

Contact Evidence;

Comparative Evidence.

1.2 *ORTHOËPIC EVIDENCE*

This type of evidence, culled from the writings of what Lass (1989: 75) calls "spelling reformers, [quasi-]linguists, descriptive/theoretical phoneticians", rather than "practitioners of 'the science of correct pronunciation'" as the common view holds, can be "solid" and "relatively clear" (Lass 1989: 77). Its value, like that of other sources of evidence for historical phonology, depends on careful, sympathetic and respectful scrutiny and evaluation (see Lass 1989 for a criticism of scrutiny and evaluation which do not meet these criteria). It can also depend on the interpreter's theoretical standpoint and it invariably relies on the scrutineer/evaluator presenting his/her linguistic findings in a consistent, unambiguous way (cf. Ch. 2. below). However, we have no orthoëpic evidence for Old English - although Bede and Alcuin, for instance, did write grammars called *De Orthographia*, these described Latin and not Old English (cf. §4.4.2 & §5.1.2.2). With the exception of the 12th-century *First Grammatical Treatise*, which is concerned only with the Old Norse spelling and sound systems, "evidence of this kind is not found for the Germanic languages until we reach early modern times" (Penzl 1969: 14). Or, as Lass (1989: 75) more waggishly puts it, specifically with reference to English, "[t]he historian of pre-16th-century English is deliciously unencumbered by hard [i.e., orthoëpic] evidence".

1.3 *METRICAL EVIDENCE*

1.3.1 Several descriptions and analyses exist of the metre of Old English poetry. The ones most commonly recognised and applied are those of Sievers in 1885 and 1893. More recent accounts of Old English metre (not always concurring with each other in terms of approach) include those of Pope in 1942, Bliss in 1958 and Russom in 1987. Metrical evidence is pretty commonly cited as a source for the reconstruction of Old English phonology (both suprasegmental and, less usually, segmental), as, for instance, by McCully and Hogg (1990: §2) or Campbell (1959: Chs. II and X). Campbell, in the first of these chapters, deals with stress patterns in native Old English words, in the second, with those in loanwords (mainly Latin ones) borrowed into Old English. His evidence for this is primarily metrical, as he says in p. 356 of his *Old English Grammar*: "[m]etre is not directly treated in the present *Grammar*, but the evidence for the accentuation of native and foreign words described in Chapters II and X .... is largely metrical. For the determination of accent, the metrical system of Sievers is sufficient .... .". There are several instances of his using metrical evidence to reconstruct segments; one example, from §47, will suffice. Here, Campbell makes the following claim in relation to the digraph ⟨ie⟩ which is found in West-Saxon texts: "[w]hen accented *i* was followed by unaccented *e*, contraction produced a diphthong in W[est]-S[axon], which fell together with *īe* of other origin, but in n[on]-W[est]-S[axon] dialects no contraction took place, and the [di]graph *ie* stands for two syllables, e.g. *sīe*, pres[ent] subj[unctive] of *bēon* be (see *BDS* 2ᵇ, where the metre requires two syllables).". On the ⟨ie⟩ digraph, see Colman (1985a) and particularly (1988a).

Reconstruction like that undertaken by Campbell for Old English, relies on the perception, description and analysis of metrical patterns in Old English poetry. But such perceptions, descriptions and analyses themselves depend ultimately on prior notions, or assumed knowledge of, word stress, vowel length and syllable quantity. Yet metrical 'evidence', as shown above, is often cited to support claims made about these very phenomena (on these, see King 1988, especially §3.2.3). It does not seem reasonable to make claims or inferences about these, or other, matters of Old English phonology which are based only, or primarily, on information gained by metrical analysis of Old English poetry - the whole exercise is circular. Additionally, Colman (1988a: 150) has this to say about Old English metrical evidence:

> .... present-day reconstructions of Old English metre are not a sound (sole) basis for phonological reconstruction. They are based on the abstractions of Sievers (the "five types" and their variants), and phonological reconstructions based on these alone are untestable. .... But what if [non-conforming half-lines] never did conform? or if there are "gaps" in Sievers' formulations? It seems back-to-front to use Sievers' abstractions to test the evidence of Old English texts, rather than the texts to test those abstractions.

These claims cannot be refuted and can be applied to non-Sieversian analyses too - present-day notions about Old English metrical practice provide no solid or independent evidence of Old English phonology.

1.3.2 Neither can these notions be appealed to in attempts to investigate metrical concerns like syllable weight. This much is admitted by Lass (1985: 259-261) who acknowledges that his earlier (1983) argument for heavy status for -VC rhymes (an argument based on the ability of words like *hronrād* to fill the lift (heavy) position in Sieversian half-lines by acquiring "derived" heavy status due to what Lass calls "boundary-shift" - was unable to be either confirmed or

disallowed because the metrical arguments were circular. The circularity derives from the "power" of the adjustments permitted in Sieversian analysis by resolution - these are such that -VC rhymes only turn up in environments where, being followed by "an orthographic V-word" (1985: 259 - e.g., *niman friþ _æt ūs*, cited by Lass and drawn from line 39 of ***Battle of Maldon***) or one beginning with a consonant, they are always interpretable as derivedly heavy, by boundary shift. Lass concludes thus (1985: 261): "Hence Old English metrical practice [*sic* - interpretations of Old English metrical practice?] provides no independent evidence for the weight of -VC; the argument has to be constructed on other grounds". The other grounds (of language-specific typological syllable weight patterning taking into account morpho-phonological evidence - in Old English and in other Germanic languages - and Old English strong verb classification) are spelt out by him in pp. 261-263 of the same article.

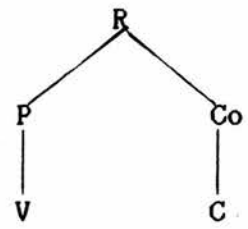
The inference to be drawn then is that syllable weight, or quantity, (and therefore Sieversian lifts and dips) is (are) determined by rhyme configuration or structure. A definition is provided by Lass (1983: 155-156) and see also 1.3.3 below:

> Light Syllable (σ̆): neither R[hyme] constituent branches, though R itself may branch.
>
> Heavy Syllable (σ̄): at least one R constituent branches.

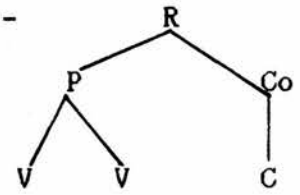
In terms of syllable structure trees, this information may be presented as in Figure (1) overleaf (where R = Rhyme, P = Peak, Co = Coda) (cf. Lass 1983: 155):

(1)

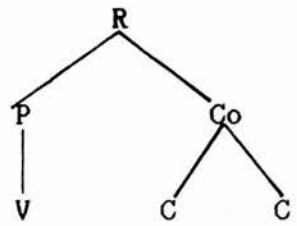
Light Syllable -



Heavy Syllable -



or



1.3.3 Further to the previous two sections, even if we did have contemporary or near-contemporary descriptions of Old English metrical patterns, akin to Snorri Sturluson's early 13th-century *Háttatal* ('Inventory of Metres' for use in Old Icelandic skaldic poetry, plus a commentary on these - all part of his *Edda*) "it should be borne in mind that metrics cannot be taken .... as direct evidence about linguistic facts [*sic*], since the metres have rules of their own and there [will] not necessarily always [be] a one-to-one correspondence between linguistic elements, such as (for example) stress or quantity, and the rules of metrics" (Árnason 1980: 108); Árnason sees foot scansion as being a matter for metrics, while what he calls "linguistic elements" are not; by "stress", he presumably means word stress, and by "quantity", vowel length; nevertheless his main point is valid). At a simple level, this can be seen, with regard to the alliterative half-line of Old English

poetry, in the consideration that the lift is usually filled by a long (heavy) syllable but that the long (heavy) syllable in question does not necessarily contain a nuclear long monophthong - it can, as in (a) below, but it can also contain a nuclear long diphthong, as in (b), or be made up of a nuclear short vowel and two consonants, as in (c) below (half-lines from *Beowulf*, culled from Lass 1983: 162):

(2)

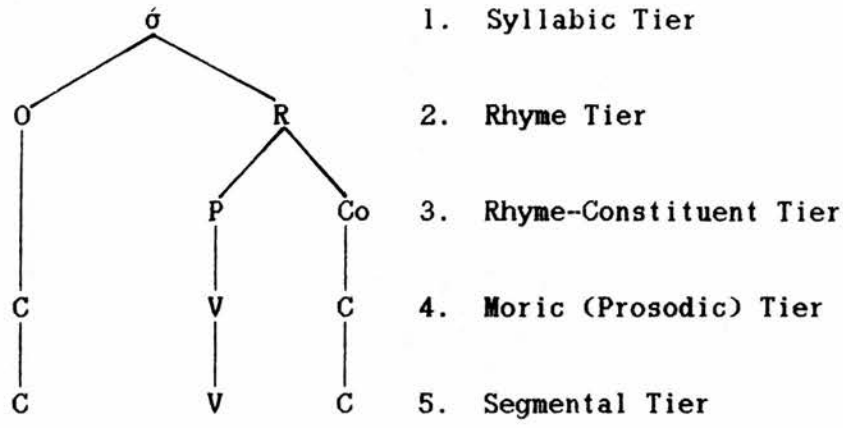
(a) *fēa-sceaft funden* (line 6a)

(b) *lēof land-fruma* (line 31a)

(c) *ðæt hine on ylde* (line 22a)

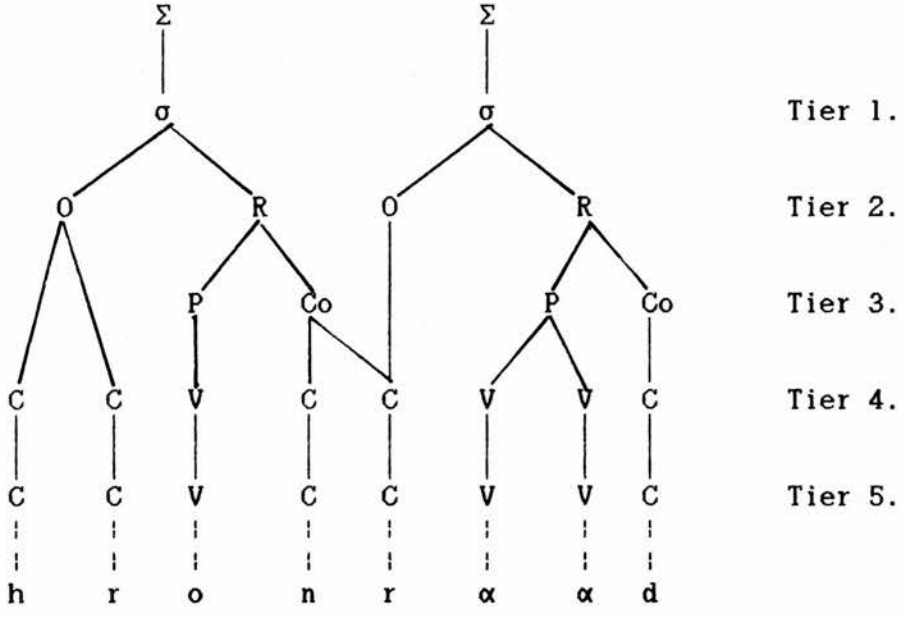
The same point is relevant not only to vowel length and syllable weight (or quantity), but also, on a more complex plane, to syllable structure. Lass's proposal (1983: §§4 and 5 and 1988a) that "one tier of a multi-tiered representation of syllable structure be taken as specifying phonological moric structure or quantity (a prosodic level), and another, lower-level tier as specifying phonetic nuclear constituency .... with .... mappings possible between tiers" (1988a: 225) is an excellent one and his accompanying exemplificatory overall model of syllable structure according to it illustrates the separation of metrical or prosodic (i.e., suprasegmental) and segmental levels invoked earlier (though differently phrased) by Árnason:

(3)



The ultimate dissociation of the prosodic and phonological levels (tiers 4 and 5 respectively) is made clear in Lass's model, just reproduced. In addition to credibility, Lass's suggestion of separate tiers has great explanatory power with regard to matters like resolution. A syllable structure tree of the example cited earlier - *hronrād* - for which Lass posits a kind of consonantal resolution he calls boundary-shift, will serve to illustrate this point very well (cf. Lass 1985: 248):

(4)



As Lass (1985: 248-249) says of this representation, "the prosodic rules interpret tier 4 only .... and thus find a rhyme which [has a

branching coda, i.e., it branches at tier 4, allowing the syllable *hron* to combine at the metrical level only with boundary-shifted *r* of the next syllable; this renders the combination heavy and therefore able to occupy a lift]. Hence whatever lower-level properties the rhyme [and its components] may have, it is heavy at the level [i.e., that of the syllable, not of the segment or the word] that counts as metrical/prosodic input."

1.3.4 What emerges from the preceding discussion of Old English metrical evidence, therefore, is that this type of information is not a reliable source of evidence for the reconstruction of Old English phonology. Any information deducible from Old English poetic metre will be evidence (of a value which depends on how it is interpreted) about Old English poetic metre and not necessarily, or at all, about Old English word stress, vowel length or syllable structure in a non-literary, non-stylised context, i.e., outside of poetry.

1.4 *CONTACT EVIDENCE*

1.4.1 By this, Penzl is referring to information obtainable about the phonology of a language from analysis of loanwords borrowed into that language from another, whether this is by direct or indirect language contact: Bynon (1977: 216-227, especially pp. 224-227) describes the methodology, or linguistic detective work, required to gain this information. The various strata of language contact that affected Old English and their results (especially in the Early Old English period) are too detailed to discuss here - see below at §4.5, especially in §§4.5.1.5, 4.5.2.1, 4.5.2.4, 4.5.3.2 and 4.5.3.; Chs. 5 and 6 should also be consulted.

1.4.2 As a source of evidence for reconstructing phonology, data arising from language contact are potentially valuable. Where Old English is concerned, if the date of borrowing of particular loanwords is known roughly (from, for example, external evidence such as their first recorded appearance in dated or datable documents), the loanwords in question can provide evidence as to the approximate date of occurrence of sound changes. This is so because once a loanword has been borrowed into a language, all of the subsequent sound changes which occur in that borrowing language and for which the word qualifies as input will be affected in the same way as if it were a native word (cf. Bynon 1977: 223). So, for instance, the Old English lexical items *cemes* 'shirt', *ele* 'oil' and *ynce* 'inch' were originally loanwords from Latin - *camisia*, *olivium* and *uncia*, respectively. All three words were probably borrowed in the Continental Germanic period, i.e., before c. 450 when the Angles, Saxons, *et al* came to England, bringing the words with them as part of their lexicon. Evidence to support this dating comes, in the case of *ele*, from its pan-Germanic nature - cognate forms of this word occur in all of the other Germanic languages too (bar Gothic), *viz.* OS *olig*, OFrs *olie*, OHG *olei*, ON *olea, olía.* In the case of *cemes* and *ynce*, their development (by comparison with like words) in Old English from the Latin forms in which they are thought to have been borrowed suggests that at the date of their borrowing, the Latin originals still had the forms specified above, i.e., they had not been affected by the palatalising development that occurred in (Imperial) Latin (cf. 5.2.1 below for language labelling and dates) some time in the 5th century whereby [k] /-[e] → [ts] (the change also happened /-[i]; [ ] being used here in a broad phonetic sense, with no claims as to precise phonetic quality). In fact, a ⟨ts⟩ spelling for this segment in the word *ynce*, *viz.*

<yntse> is recorded in Old English, but not until the Late Old English period (cf. *idem*, Bosworth and Toller 1898: 1300) which suggests a late re-borrowing (the difference of meaning in this form *yntse*, i.e., 'ounce', by comparison with *ynce* 'inch', though both are from the same Latin form *uncia*, supports this suggestion, as does the correspondingly differing noun declension classification - *yntse* is classified as a -[jo:n]-stem, *ynce* as a -[ja]-stem, cf. Campbell 1959: §522). Campbell (1959: §477.1) reports another Late Old English form <ynse> 'ounce' which seems to reflect Late Old English reduction of consonant groups, in this case, [ts]: <ts> → [s]:<s> (cf. also, e.g., <mils> for <milts> 'mercy'). Had the word for *inch* been borrowed from Latin before this sound change took place, it is a fair assumption that the segment represented in the first recorded forms of the word in Old English by <c> would have been spelt with some graphic sequence representing the [ts] group derived from Classical Latin [k] /-[e] (though, of course, sound changes are not always reflected in corresponding spelling changes, cf. 3.4.6 below). Furthermore, the Latin form <camis[i]a> is recorded in an 8th-century text, the *Corpus Glossary* (cf. *idem*, Sweet, revised Hoad 1978: 17 - the [ ] brackets in the form are editorial; see also King, in press: §2.5.1.1 on the dating of this text).

1.4.3 The Old English spelling system was pretty closely based on that of Latin (cf. Ch.6 below). The changes to the spelling of the stressed vowels in the Old English forms of these three words by comparison with their Latin originals are not explicable in terms of any Imperial Latin sound change(s). The spelling changes (specified below) therefore point to the stressed vowels themselves having been affected by a qualitative sound change, or sound changes in the Pre- Old English period (i.e., between c. 450 and the date of the first texts in Old

English which record any substantial amounts of Old English data other than personal names and place names - roughly 8th century, cf. Ch. 6 below). The stressed vowel spelling changes and their supposed, respective phonological correspondences are:

(5)

camisia → *cemes* - ⟨a⟩ → ⟨e⟩, i.e., a low central unrounded vowel [a] developing to a mid front unrounded vowel [e];

olivium → *ele* - ⟨o⟩ → ⟨e⟩, i.e., a mid back rounded vowel [o] developing (as Early Old English spelling records suggest, via a mid front rounded vowel [ø]:⟨oe⟩) to a mid front rounded vowel [e];

uncia → *ynce* - ⟨u⟩ → ⟨y⟩, i.e., a high back rounded vowel [u] developing to a high front rounded vowel [y].

Because the spelling of the Latin antecedents of these lexical items is known, and because the phonological significance of the stressed vowel segment spellings can be fairly accurately inferred for Latin and Old English, we are afforded several clues as to what the sound change was which affected these words after they had been borrowed and also that it was combinative (i.e., context sensitive/conditioned), as well as information on the phonological context that conditioned it. The change was one of regressive assimilation of highness and frontness - a kind of vowel harmony whereby the vowel in the stressed syllable changed its quality so that its feature specification became more similar, or as similar as possible, to that of the high, front segment in the following unstressed syllable (this could also be [j], cf. the works referred to just below); in other words, *i*-umlaut - a sound change reconstructable from many Old English data (for a description of *i*-umlaut, see Lass 1987: 122-123 or Campbell 1959: §§190-204 - the latter also gives many supporting Old English examples). Were there no information available

on what the originals of these three loanwords were, we would have no knowledge of the qualitative and combinative nature of the sound change which affected them, or of its conditioning context - it is not recoverable from the spelling forms of these words in Old English because the unstressed [i] had developed, by the time they were first written down, to [ə]: <e> in each of the forms (on this development and the loss of final, unstressed syllables from the Latin originals, cf. Campbell 1959: §§353 and 511-528). With the help of this information, the details of *i*-umlaut as it affected the stressed vowel in these words are reconstructable as follows:

(6)

cemes [a] /-N → Pre OE [ɑ] → [æ] → [e]:<e>
| |
I.U. Further Raising
/-$[i]

ele [o] → [ø] → [e]:<e>
| |
I.U. Unrounding (in Non-Anglian only)
/-$[i]

ynce [u] → [y]:<y>
|
I.U.
/-$[i]

1.4.4 Given that the outputs of *i*-umlaut are represented in the spelling of the earliest OE texts, *i*-umlaut can be assumed to have occurred by c.700 A.D. (cf. also below). It occurred in all Germanic languages, with the exception of Gothic. This could be for one of two reasons - either the change had occurred, but was not reflected by a change in the spelling, e.g., <sagjan> 'to say', c.f. OE <secgan> where <e> represents [e] ← [a] by *i*-umlaut /$[j]; this would not necessarily mean that *i*-umlaut had not occurred in Gothic, simply that its output retained allophonic status because the conditioning context was retained. Alternatively, *i*-umlaut took place too late to have occurred in Gothic in

time to be reflected in our only extant Gothic texts (the *Gospel* translations into Gothic of Bishop Wulfila, c. 350 A.D.). The extent of the sound change varied somewhat in the other Germanic languages in which it took place - it was very extensive in Old Norse and Old English, less so in Old Saxon and Old High German. In Old High German there is considerable dialect variation in the operation and timing of *i*-umlaut (see Prokosch 1939: §41(i) and also Kyes 1967, esp. pp. 671-672 on the orthographic representation of *i*-umlaut in Old Low Franconian which is relevant here but perhaps also to considerations of Old Saxon orthography, cf. the following brief discussion of this). Where Old Saxon is concerned the impression of lesser occurrence of *i*-umlaut may be due simply to the orthography not reflecting, or not needing to reflect, the change. The original context remains in the Old Saxon spelling of many forms (cf. the discussion of Gothic just above), e.g., ⟨andwurdi⟩ 'answer', alongside *i*-umlaut-reflecting ⟨andwirdi⟩, where the first, stressed vowel graph ⟨i⟩ in this latter form reflects *i*-umlaut of [u] to [y] - cf. Prokosch 1939: §41(d). This lack of spelling change, alongside the occurrence of forms with changed stressed vowel graphs, seems to signify not that the change had not taken place, but only that its output retained allophonic status. Prokosch (1939: §§41-42a and 42c) describes and exemplifies the operation of *i*-umlaut in full. Despite the slight diversities just noted, this sound change did take place in all of the Germanic languages, save Gothic, and so can be assumed to have taken place, or at least begun to take place during the Continental Germanic period. The three loanwords dealt with above had apparently been borrowed into Germanic - at least those Germanic areas from which the Anglo-Saxons originated - by the 5th century (cf. the discussion earlier on the original forms of the borrowed words with non-palatalised

[k] in Imperial Latin). "The earliest Runic inscriptions (4th to 6th century) show some unmutated forms" according to Prokosch (1939: §41d). It seems reasonable, therefore, to suggest that *i*-umlaut began some time in the 5th century, before the Angles, Saxons *et al* had migrated *en masse* to England and that it continued after the migration. It seems to have been complete by the early 8th century - Campbell (1959: §196) cites forms like <doehter>, <oexen> for later <dehter> and <exen> occurring in the *Vespasian Psalter* which is dated around the mid 9th century - the latter two forms also show unrounding of [ø] to [e], a change not necessarily part of the *i*-umlaut process.

1.4.5 From the above, it is clear then that loanword data in a particular language can be of use, especially as supporting evidence, in reconstructing phonology - particularly when this relates to the dating, type and operation of individual sound changes.

1.4.6 Generally, however, with this potential source of evidence for the phonology of a historical period or periods of a language, there is a problem of interpretation. The information obtainable from the synchronic data arising from contact between languages is in the form of written records - in both the donor and borrower languages. These records or, more particularly, the spelling in these records and its relationship to the two individual phonologies must be able to be interpreted accurately and as unambiguously as possible in order that the necessary donor-to-borrower language correspondences can be established and the contact data by means of these fruitfully interpreted (on this question, see further §1.6 below and Chs. 2, 3, 5 and 6 *passim*).

A salutary case allowing the methodology and efficacy of reconstruction based on language contact phenomena to be tested is that of the attempt by Lehiste, described in Jeffers and Lehiste (1979: 155 -

158) to reconstruct Estonian solely by analysing the language of a long poem written in Halbdeutsch, a kind of Baltic German based on an Estonian substratum which was spoken by the lower middle classes in small towns in Estonia in the 19th century, but which died out during this century.

With regard to phonology, the content of the poem allowed eight vowel qualities: /i, e, ä, u, o, a, ö, ü/ to be reconstructed; the ninth Estonian vowel quality: /õ/ could not be recovered. It proved impossible to reconstruct the Estonian vowel quantity system, one in which vowels may occur as short, long and what Jeffers and Lehiste (p. 156) describe as "overlong". Phonemic oppositions were establishable for all of the vowel qualities, apart from that between /e/ and /ä/. Of the twenty-three diphthongs in Estonian, only two - /ei/ and /au/ - appeared in the poem. As Jeffers and Lehiste report it (p. 156) "there [was] no way even to guess at the extreme richness of the Estonian diphthongal inventory". The consonant system of Estonian is characterised by the absence of a voiced versus voiceless correlation, the existence of a series of palatalised dentals (/t, n, l, s/ contrast with /t', n', l', s'/), the presence of only two kinds of sibilant (/s/ and /s'/) and a three-way quantity opposition in all consonants. Of these characteristics, some could be reconstructed and some partially reconstructed; other information surfaced too: the absence of the voiced versus voiceless opposition was recoverable only in word-initial position; the non-existence of /f/ and /b, d, g/ was able to be worked out, as was the existence of only two sibilants. Additional characteristics which the analysis threw up were the loss of word-initial /h/ and the apparent simplification of initial consonant clusters (presumably these are described as loss and simplificiation by comparison with the Baltic

German features in the text). The presence in the Estonian consonant inventory of a palatalised dental series and three-way quantity contrasts could not be reconstructed on the basis of the data in the poem.

There were bound to be gaps in what Lehiste was able to reconstruct in the way of the phonology, syntax, morphology and vocabulary of Estonian, given that she used only the one text - albeit a long one. Even bearing this in mind though, the shortcomings in the content of the text provided not a few opportunities to draw wrong conclusions. The most glaring ones are that Estonian had only regular verbs and only one type of noun inflexion. As Jeffers and Lehiste point out (p. 157) concerning the former conclusion: "this would be a gross oversimplification: the Estonian verbal system (as well as the nominal one) is characterized by complicated morphophonemic changes in the stem, even though ablaut of the Germanic kind is not present". In relation to the latter one, the consideration that in the Estonian nominal inflectional system, there are fourteen cases with twenty-eight different forms is probably sufficiently damning to require no further comment. In this particular instance, the existence of evidence, independent of the text, for Estonian and Baltic German gave Lehiste the means of checking the accuracy or otherwise of her findings about Estonian. This was, as the results show, very fortunate. Where no such independent check, in the form, ideally, of first-hand, synchronic and direct evidence of a language or languages exists - as is the case with historical linguistic varieties like Old English for which we have only written records - and if the preconditions set out in the opening paragraph of this sub-section cannot be met for either or one of the languages in question, the process of inter-language phonological comparisons will clearly be hindered significantly or completely, rendering it impossible to obtain the relevant

information, or all of the relevant information for phonological reconstruction (cf. Ch. 5 below on this problem in relation to Early Old English).

1.4.7 On the basis of the discussion above then, it can be concluded that, while valuable information on historical phonological matters can sometimes be gained from language contact data, as a source of evidence for historical phonology, its value is really pretty limited. It is not wholly trustworthy - think of the problems inherent in loans as a source of data for reconstructing phonology, e.g. the problems of reborrowings - cf. again *yntse* 'ounce' - especially if and when it is the sole source of evidence made use of by the reconstructor.

1.5 *COMPARATIVE EVIDENCE*

1.5.1 This is of two types:

Cross-Language Comparison in which morphemes, or parts of them, and/or words or sets of words showing similarity of form and/or meaning in languages which differ to some extent synchronically are compared to try to discover sets of phonological correspondences between or among them. This is done with a view to reconstructing, from the relationships that emerge, a full synchronic phoneme system or some subpart of the phoneme inventory, for a postulated proto-language from which the individual, daughter/sister languages could have, or seem to have, descended. The history of the separate languages can from this point be reconstructed with the help of inferred diachronic sound changes which are believed to account for the synchronic phonological divergences perceivable between or among the daughter/sister languages. This method is based on two principles. The first - relatedness - assumes that the languages in question, despite their surface synchronic

differences, are ultimately related linguistically through a parent proto-language. The second - regularity - relates to the inferred sound changes. Once reconstructed, these are deemed to have taken place "according to laws that admit no exception", cf. Lehmann (1973: 87). Furthermore, all of the words in which the sound assumed to have undergone the change occur are supposedly affected by it in the same way and at the same pace, cf. Bynon (1977: 25).

Internal Comparison operates in the same way as cross-language comparison except that it could be said to be on a smaller scale. Instead of daughter/sister languages, it is dialects of the same language that are compared, though usually with a view to reconstructing features of the dialects themselves, rather than the language, as well as the sound changes which apparently gave rise to them. Alternatively, conditioned alternation manifested in the synchronic system of a particular language may be investigated by means of internal comparison in order to reconstruct either the diachronic sound change(s) responsible for the alternation or information about the structure of the language. In some cases, both types of comparison have to be undertaken interdependently so that the the system, segments, structural information, or whatever, can be satisfactorily reconstructed. The two principles of regularity just enumerated apply also to internal comparison.

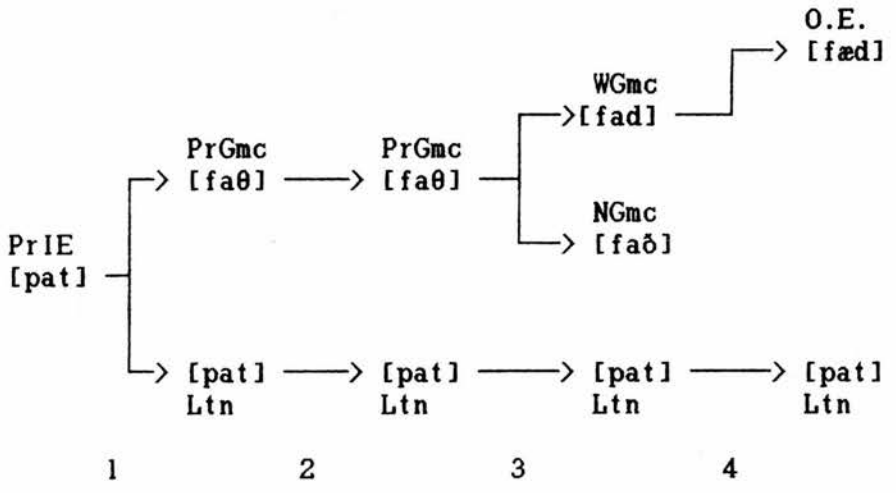
1.5.2 *Cross-Language Comparison*

The kind of information about Old English phonology which can be yielded by this method may be illustrated by its application to the form *fæder* 'father' recorded in Old English (West Saxon) texts. Cognate forms of this word in ultimately-related languages are, for instance, the transliterated Skt form *pitá* (non-Germanic), Ltn *pater* (non-Germanic), ON *fað(i)r* (representative of North Germanic), Go *fadar* (East Germanic) and

OS *fader/fadar* (like Old English, a West Germanic language). We have written records (indeed, grammars) of Sanskrit which are dated several centuries before 400 B.C.; many epigraphical and manuscript records of Latin survive,in an unbroken tradition, from around 200 B.C. (though it is first attested in an inscription of approximately 600 B.C.) - for details of the Sanskrit grammars and Ltn records, see Lehmann (1973: 22-23, 30). Given that these two languages and the Germanic languages are thought to have descended from a common language - Proto-Indo-European - and that they were committed to writing centuries before the earliest records of any of the Germanic languages (4th-century A.D.), it seems reasonable to assume, subject to satisfactory interpretation of the written records of Sanskrit and Latin (cf. §1.4.6), that these preserve in writing an earlier stage of phonological development from Proto-Indo-European than do those of any of the Germanic languages. Sanskrit and Latin both preserve a word-initial <p> (Roman-letter transliteration), representing (presumably) /p/. The Germanic forms without exception have, instead, <f>, representing (presumably) /f/ [though cf. 3.2.2.1 below for Old English]. This suggests that /f/ (at least word-initially) developed from an earlier /p/. Likewise, the word-medial <t> (Roman-letter transliteration), representing /t/ (presumably) in the Sanskrit and Latin forms corresponds to <d>:/d/ (presumably) in the Gothic form and West Germanic forms and <ð>:/ð/ (presumably) in the Old Norse, North Germanic form. Again the non-Germanic forms may be assumed to be the earliest, but with regard to this segment, the West Germanic languages concur, while the North Germanic one does not. This might well lead to the suspicion that it is North Germanic that has diverged rather than the other Germanic and non-Germanic languages from the Proto-Indo-European original segment.

All of these assumptions are borne out by the processes and outputs of several sound changes reconstructed in the last century which apparently explain and result in the root syllable [fæd]:<fæd> in Old English as set out in (7) below (the horizontal plane in the diagram below depicts comparative, and vertical, diachronic developments):

(7)



(Numbers refer to the reconstructed sound changes described just below)

1. The operation, only in PrGmc, of Stage I of Grimm's Law, whereby the PrIE voiceless stops become voiceless fricatives (cf. Prokosch 1939: §§ 15-16, 19; Lehmann 1973: §§5.3, 5.8), thus -

p	t	k	kʷ
↓	↓	↓	↓
f	θ	x	x(w)

⇒ Gmc #[f] and [θ]# cf.
Ltn #[p] and [t]#

2. The working of Verner's Law, again only in the Germanic languages, whereby, if occurring in a syllable preceding that which carried the main stress, the PrIE and Grimm's Law-derived voiceless fricatives developed to voiced fricatives (cf. Prokosch 1939: §20; Lehmann 1973: §5.6)

⇒ Gmc word-medial [ð] cf.
Ltn word-medial [t] (unaffected).

3. At Stage 3, in West Germanic, the voiced fricatives, derived from PrIE and the operation of Verner's Law became voiced stops, so -

β	ð	ɣ
↓	↓	↓
b	d	g

This was a contextually-determined sound change that affected the relevant phones in different phonetic environments (cf. Prokosch 1939: §§16 and 24, esp. (c)).

⇒ WGmc (incl. OE) [d]# cf.
NGmc (e.g. ON) [ð]# (remains) cf.
non-Gmc (e.g., Ltn) [t]# (again unaffected)

4. Gmc [a] ← PrIE [ə] or [a] → [æ] in Old English (and Old Frisian) by First Fronting (Prokosch 1939: §§34c, 38b and c; Campbell 1959: §§131, 133), thus -

⇒ OE [æ] cf.
ON [a] (not affected) cf.
Ltn [a] (unaffected).

Further, having reconstructed the consonants of the Old English form *fæder* and an assumed quality [æ] for the stressed vowel by referring to the evolution of this word from Proto Indo-European, Proto-Germanic and on to PE *father*, the assumption, tacit till now, of its short quantity in Old English can also be supported. The Present-day English form has stressed vowel [ɑ:] (Gimson 1980: 113-114), which suggests the following evolution from Old English:

(8) OE [æ] → ME [a] → EME [ɑ:] → PE [ɑ:]
|
Retraction and lengthening
of [ɑ] /-fricative [ð]
c. 18th-century.

Had this low front vowel [æ] been long in Old English and remained thus in Middle English, it, in common with all long vowels, would have been affected during the late Middle English/Early Modern English period by the Great Vowel Shift (on which see Strang 1970: §§101-104; Gimson 1980: 74, 78, 86 ; Stockwell 1972; Stockwell and Minkova 1988 and Lass 1976: 57-85, 1988(b), 1989 and to appear). The result of this

would have been raising by one or two heights, giving eventually a qualitative change to PE /eɪ/ (though cf. Stockwell and Minkova just cited and Lass 1988(b), 1989 and to appear). This clearly did not happen and the positing of a short vowel in Old English therefore seems justified.

On the other hand, the existence of the Modern Scots dialect[1] reflex [fe:ðər], with stem vowel [e:], which is the output of the operation of the Great Vowel Shift on [a:] → [ɛ:] → [e:], suggests that the stressed vowel in this word was long in late Old English/early Middle English. This, however, may be explicable in terms of (Middle English) Open Syllable Lengthening (cf. Strang 1970: §§109, 135, Dobson 1962, Minkova 1982, Stockwell 1985) which seems to have produced doublets of certain lexemes. In the case of ME *fader*, two forms arose: one with lengthened [a:] ← eME/lOE [a] and the other, by the influence of the inflected trisyllabic form *faderes*, which retained short [a]. In the predecessor of spoken Standard English - cf. 2.3 below on the concept of *standard* - the form with the original short vowel [a] would appear to have been generalised throughout the paradigm (cf. Strang 1970: §135). Both present-day diatopically- variant reflexes must, however, have arisen from an vowel that was short in Old English (see further below at §1.5.3 and §3.4.3, also King 1988 on vowel length in Old English) and our assumption/reconstruction of the shortness of the vowel [æ]:<æ> in OE *fæder* can be said to be borne out by post-Old English linguistic developments.

1.5.3 *Internal Comparison*

Certain information about Old English syllable structure and vowel quantity may be gained by means of Internal Comparison (assisted at points by Cross-language Comparison). This can be exemplified by

looking at the synchronic morpho-phonological alternations evidenced in the Nominative/Accusative Plural forms of three Strong, Neuter *-a*-stem nouns, i.e., *scipu* 'ships', *hūs* 'houses' and *word* 'words'. It could be expected (cf. the corresponding Modern English word forms) that these three lexemes of the same historical declensional sub-class would be structured alike and pattern identically with regard to the addition or non-addition of inflexional morphemes to the stem syllable to express the morphological category of number. If we look at their morphological structures, however, we find that this is not so (for morphological notation used here, see Colman 1985b):

(9)

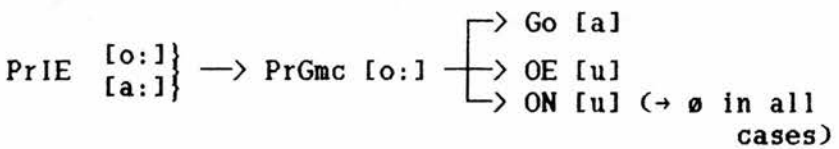
scipu	{ʃip}	{u}	cf. *scip*	{ʃip}	
	|	|		|	
	Root	Inflex. Suffix		Root (Stem)	
	(Stem)	(Nom/Acc Plu)		(Nom/Acc Sg)	
hūs	{xu:s}		cf. *hūs*	{xu:s}	
	|			|	
	Root (Stem)			Root (Stem)	
				(Nom/Acc Sg)	
word	{word}		cf. *word*	{word}	
	|			|	
	Root (Stem)			Root (Stem)	
				(Nom/Acc Sg)	

Of these three word-forms , only *scipu* indicates Plural number by affixation (in this case the addition of the suffix {u} to the stem) - in this way Singular and Plural word forms are differentiated from each other. *Hūs* and *word*, by comparison, show syncretism in the expression, by the same morpho-phonological form ({xu:s} and {word} respectively), of both Singular and Plural number and Nominative and Accusative case.

If, in addition, we have recourse to Cross-language Comparison, it is discovered that the reconstructed nominative/accusative Plural inflexional on Strong, neuter nouns was unstressed PrGmc [o:] (← PrIE [o:] and [a:]). Unless such long, word-final vowels had "abnormal" or "circumflex"

accent in PrIE (Campbell 1959: §330 and fn. 3) they were regularly shortened in Proto-Germanic. Accordingly, when the development of this inflexional suffix into the main branches of the Germanic languages is traced (cf. Prokosch 1939: §79 (i), (k); Wright 1910: §§89, 181-182; Campbell 1959: §§331(5), 570), it is a short reflex that occurs (along with quality changes), thus:

(10)

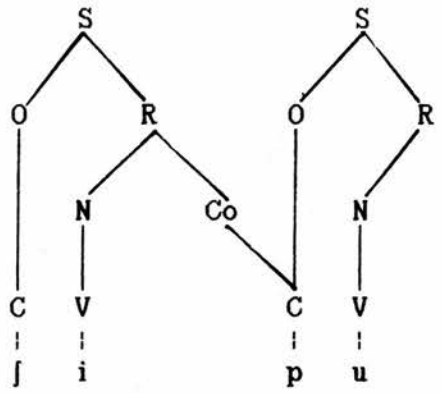


Following Wright (1910: §§181-182), the Gothic cognates which correlate systematically it seems with the three Old English word forms in question can be cited: Go *skipa* cf. OE *scipu*, Go *(gud)hūsa* cf. OE *hūs* and Go *waurda* cf. OE *word*. From these, it can be reasonably inferred that Proto-Old English forms [skipu], [hu:su] and [wordu] existed and that the unstressed vowel [u] was lost in the latter two instances before the time when extant manuscript records begin.

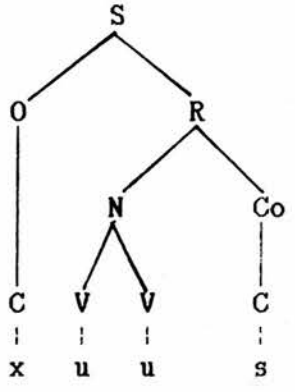
To find out why only certain members of the same declensional class should be thus affected, we can turn again to structural considerations. This time, the syllable structures of the three forms will be examined (using the constituency model for syllable structure as per Lass 1983: 152 and 1984a: §10.3.2; *Peak (P)* in Lass corresponds to *Nucleus (N)* here):

(11)

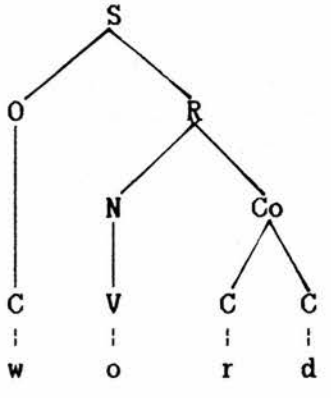
scipu ² -



hūs -



word -



These syllable structure trees show that the two forms lacking the nominative/accusative plural morpheme (u) also have in common a heavy Rhyme, i.e., one consisting of *VVC* or *VCC*, both of which collocations fulfil the apparent requirements in Old English for a long syllable (see Lass 1984a : §10.3.2 on evidence for *Rhyme* and Lass 1983: 155, 162 and 1984: 250-254 on definitions of long and short syllables in Old English). The accented syllable of *scipu*, by contrast, with a Rhyme structure *VC*,

is a short syllable. This structural evidence leads to the conclusion that in Old English a phonotactic constraint operated within certain declension classes, like the strong, neuter noun ones under consideration here, whereby a word-final morpheme (u) was realised phonologically only if it occurred after a short-syllabled stem, hence *scipu*, and was lost after a long-syllabled stem, hence *hūs, word*. This conclusion, reached by using the methods of Internal and Cross-language Comparison, is supported by, for example, Campbell (1959: §345), who states that [u] was "lost in Prim OE, in final unaccented syllables after a long accented syllable ...." and that it "remained after a short accented syllable ....". Prokosch (1939: §79i) makes a similar statement: "[t]he ending of nom., acc. plu. [of neuter -*a*-stems] ...., which appears as .... -*u* in NWGmc was lost .... in WGmc [including Old English] after a long syllable ....". (For an examination of morpho-phonological alternations brought about by diachronic sound change, see 3.4.4.)

1.5.4 In the preceding two sub-sections the results of comparative reconstruction have been fairly fruitful, or, as Jeffers and Lehiste put it, "the method of .... reconstruction is often extraordinarily powerful" (1979: 48). This phrasing turns out to be rather optimistic, however, when some of the difficulties met with in attempts at reconstruction are considered. Internal Comparison, for instance, produces fully satisfactory results only when the segments that result from reconstructed sound change are not subject to complete merger with a phoneme/phonemes already present in the system at the relevant point. It is necessary when complete merger does occur for there to be some residual evidence of a sound change in the synchronic system for the change in question to be recoverable (cf. §1.5.3 above, especially the latter part). Jeffers and Lehiste (1979: 42) cite the case of the merger of PrIE [o] and [a] ([ ]

being used here in a broad phonetic sense) in PrGmc/Gmc [a]. This merger was absolute - there is no evidence in the Germanic languages that the short vowel [a] in their vowel inventories derives from the two earlier and phonemically-distinct vowels. The Proto Indo-European/Proto Germanic short vowel systems which gave rise to the Germanic ones cannot be reconstructed on the basis of Internal Comparison alone. The discussion of *i*-umlaut above in §1.4 could also be referred to again in this connection, especially §1.4.3.

As stated earlier (§1.5.1) comparative methods of reconstruction depend for any successful results on the vital principle of regularity. This produces the necessary total uniformity of phonological structure and morphological classification throughout the branch(es) of the proto languages to which any given lexeme or word form is attributed. Lass (1986: 473) states:

> Much of what we know (or think we know) about language history is based on our belief in a central claim of comparative method: that regular phonetic change yields regular correspondences, and that this entails the regular development (and hence comparability and reconstructibility) of morphemes and words.

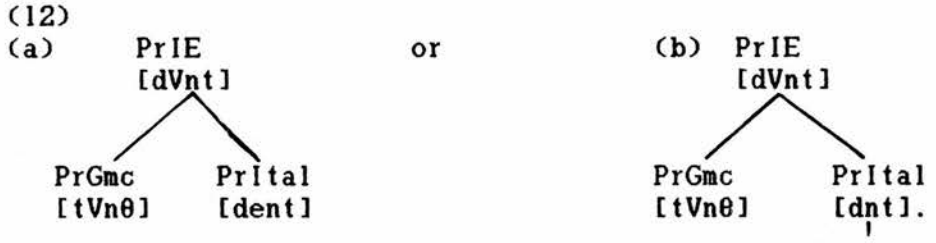
It is indeed possible for us to infer sets of paradigmatic relations from regular phonological correspondences - recall the set of Proto Indo-European voiceless stops presented earlier. These can be reconstructed on the basis of the correspondences obtaining between Germanic and non-Germanic obstruents, the former, but not the latter, having been affected by the operation of Grimm's Law, and *vice versa*. Lass (1986: 473), however, questions the apparent infallibility of the etymological and comparative methods, thus:

> .... it is not the case that the results of a paradigmatic reconstruction .... can be extrapolated to the reconstruction of syntagmatic relations at word or morpheme level in a simple, additive way.

As proof of this, he adduces the case of Germanic *'tooth'*. A basic consonantal skeleton [dVnt] can be posited for this word with corresponding reflexes: PrGmc [tVnθ] and PrItal [dVnt], but a vocalic segment is not so easily found, as will now be shown (in the discussion which follows the Gothic forms cited are Roman-letter transliterations).

The stressed vowel [e:):<e> in Ltn *dēns, dentis* ← a stem *dent-* has two possible Proto Italic sources: [e] + [nC] or [n̥] + [C], so that there are two possible stemmata for *'tooth', viz.*:

(12)



When we compare these stemmata with the Germanic cognates for *'tooth'*: OE *tōþ, OFris tōth*, OS *tand*; OHG *zan(d)*, ON *tǫnn*; Go *tunþus*, we do not find what are regarded as the characteristic historically-derived vocalisms of either of the two stemmata. The expected Germanic correlative for (a) - Ltn [enC], is [inC], e.g., Ltn *ventus* 'wind', corresponding to OE/OS *wind*, ON *vindr*, Go *winds*, etc.. This lack of a regular correspondence suggests that these forms do not in fact derive from a unique Proto Indo-European proto-form and that, as a result, the term *cognate* as applied to them may be a misnomer.

[n̥C], stemma (b), is even more problematic with regard to Germanic. It could be expected to produce in Proto Germanic a sequence of [unC]; Germanic regularly reflects a Proto Indo-European sequence:

$$\begin{bmatrix} \text{syllabic} \\ - \\ \text{resonant} \end{bmatrix} + C -$$

as [- u + Resonant + C -] (Prokosch 1939: §13); compare, e.g., Skt *vṛkas* 'wolf' ← [wl̥kʷos] with OE, OS, OHG *wulf*, ON *ulfr* and Go *wulfs*. But, to account for the predominant vocalism of the Germanic forms, a Proto Germanic sequence [anC] is necessary. Furthermore, not only do the bulk of the Germanic reflexes agree with each other in failing to relate back systematically to the ancestor of this Italic one, they are also at variance with the Gothic form; on the one hand, Gothic *tunþus*, with a [u] vocalism, cannot derive in any regular way from the Proto Germanic ancestor [anθ] common to all of the other Germanic forms, but, on the other hand, it alone of all the Germanic forms does seem to be truly cognate with Proto Italic [dn̥t] (cf. *'wolf'* above).

The conclusions to be drawn from this evidence are that the Proto Italic and Proto Germanic forms of *'tooth'* derive neither from a single Proto Indo-European source nor even two, differentiated by vocalism feeding into Proto Italic and Proto Germanic. This can be deduced from the Germanic forms which, despite the correspondences in consonantism and semantics, show two conflicting vocalisms - [a] and [u] in the same phonological environment - even allowing for the occurrence of different language-specific developments after the break-up of Common Germanic.

Still in pursuit of the elusive proto-vocalism, Lass (1986) goes on to reject the idea of its having been an "autonomous segment" (p. 476) and to focus instead on the set of vowel-grades associated with *tooth*, since it was a Proto Indo-European ablauting root (cf. Prokosch 1939: §§44-46, 76 for information on ablaut and vowel-grades). These vowel-grades, because they are "partly phonologically determined, partly morphosyntactically determined, and partly idiosyncratic" (Lass 1986: 476), perhaps excuse the vocalic variety, but do not explain it. Sub-groupings within Proto Indo-European place Germanic in a North-West

European group, along with the Baltic, Slavic, Italic and Celtic languages (Lass 1986: 477 and references). Yet not even within this linguistic sub-group does a uniform vowel-grade occur: Baltic shows (full) *o*-grade, Celtic and Italic zero-grade and Germanic both full *o*-grade and zero-grade. The Germanic forms seem therefore to have developed from an *o*-grade, the stem vowel [a] ← [o] (cf. Ltn *quod*, Go *ƕa*, ON *hvat*, OS *hwat*, OHG *hwaz* and OE *hwæt* 'what'). Once again, though, the Gothic form will not allow us to reconstruct a Proto Germanic proto-form for it is aberrant in that it generalises in *tunþus* a zero-grade, i.e., a vocalism from a weak case form of a Proto Indo-European noun paradigm. Moreover, both the weak (non-root-accented) form and the noun paradigm to which it belonged are unspecifiable because Gothic has innovated further by transferring *'tooth'* from the athematic consonant-stem declension class to the *-u*-stem declension. Or rather, this is what we must assume, from the bulk of the Proto Indo-European evidence, to have happened. Alternatively, the Gothic *-u*-stem stem may be the sole survivor of a Proto Indo-European doublet belonging to both declensional classes.

Because of this complexity and uncertainty, we are here dealing with what Lass (1986: 478) describes as "'choices' of vowel qualities from some stipulated (morphosyntactic) set", though it should be added that these "choices" are not always the expected ones, witness Gothic's "choice" of a zero-grade where, in what is presumably a nom sg word form, *tunþus*, a full-grade would normally be looked for. The corollary of this is that we are unable to specify a single proto-vocalism which could have been inherited by Germanic. Lass (1986: 474) defines the etymology of a form as:

> a set of segment-to-segment functions [traceable] from one time-indexed set into one or more other time-indexed sets.

Because we cannot reconstruct such a string of phonologically-specified segments for Germanic *'tooth'*, but only a consonantal framework plus a set of exponence rules for the vocalism, namely,

(13)

$$\begin{bmatrix} \text{[d-nt]} \\ \text{[Ablaut Rules]} \end{bmatrix}$$

We do not, and cannot, have a root-etymon for this, or strictly-speaking, any other ablauting word.

1.5.5 The example of Germanic *'tooth'* shows just how dependent comparative methods of reconstruction are upon an absolute regularity of interlingual and intralingual phonological correspondences and developments between and affecting morphemes and words. Lehmann (1973: 84) makes the point, further, but very pertinent, to the concerns of the previous sub-section that one drawback of comparative reconstruction is its assumption of a complete uniformity (and consequent lack of dialectal diversity) in the parent/proto-language, which yields a dialect-variant-free reconstructed corpus. Lass's 1986 exploration of the lexeme *'tooth'* shows the wisdom of Lehmann's point. It also shows how limited comparative methods, without the requisite regularity, are as a source of phonological evidence for Old English.

Other drawbacks of comparative reconstruction, applicable generally, but relevant here to Old English phonology include the following: the inability to reconstruct phonetic detail/characterisation with reference to reconstructed segments (information on this can sometimes be inferred however on the basis of probability - cf., e.g., forms like Old English *cyning* where the retention of the conditioning context, /-$[i]:<i>, i.e., a

high, front segment encourages reconstruction of a process of regressive assimilation of frontness (and height where possible) acting on an original vocalic segment characterisable as [+back] and [+rounded], cf. §1.4 above on *i*-umlaut, and, from this, the assumption that <y> represented a rounded, but front, vowel [y] in Old English). Another limitation of this type of reconstruction is that it will not always yield information on the phonemic/phonetic status of the segments involved. *Fæder* is a case in point (cf. §1.5.2 above) - even though different graphs, i.e., <æ> and <a> are used, it cannot be taken for granted that this usage correlates with phonemic status for the phones represented by each of these separate graphs (cf. Colman 1983b and 3.4.3 below). The final drawback of comparative reconstruction to be considered here is that expressed by Bynon (1977: 25):

> [When the comparative method of reconstruction is a]pplied to specific changes in particular languages this means that (a) the direction in which a sound changes is the same for all the members of the speech community in question .... and (b) that all the words in which the sound undergoing the change occurs in the same phonetic environment are affected by the change in the same way .... .

With reference to (b), it is probably sufficient to cite Old English dialectal forms like Nb *barn*, cf. WS *bearn* in which (presuming accurate interpretation of the phonological significance of the relevant graphs) exactly "the same phonetic environment", i.e., /[b]-[r]+C has produced two different reflexes - Nb [ɑ]:<a> due to retraction and WS [æɑ]:<ea> due to breaking (cf. Campbell 1959: §§139, 144). Bynon's (a) - the notion that sound changes take effect at the same pace is not tenable either, as Lass (1984a: 326) says "the problem with [this, *viz.*] the Neogrammarian model is that it .... neglects TIME". Recent research has shown that sound change is "gradual, ... selective with respect to the

lexicon .... and .... sensitive to morphosyntax" (Lass 1984a: 327) - the latter point is applicable also to point (a) quoted above (consider, for instance, interparadigmatic alternations such as *mann* cf. *menn*, which arose from *i*-umlaut - cf. §1.4 above and §3.4.4 below). For exemplification and discussion of the mechanism of sound change, i.e., its gradualness, the concept of lexical diffusion and what Lass calls "missing links", see Lass (1984a: §13.4).

1.5.6 From the aforegoing then, it appears that, while the application of comparative methods of reconstruction is capable of producing worthwhile information on historical phonology, it has several flaws or shortcomings which render it unreliable as the primary, or only, source of information about Old English phonology.

1.6 *SPELLING EVIDENCE*

The data and discussion presented in the preceding five sections have revealed the kinds of failures and drawbacks which are likely to be encountered in attempting to recover the phonology of Old English by means of examining and analysing Orthoëpic Evidence, Metrical Evidence, Contact Evidence and Comparative Evidence, or applying the methods necessary in each instance to produce the evidence. It was concluded in each case that the evidence and/or methods were individually insufficient. Moreover, it is worth remembering that they all rely ultimately, and in most instances, entirely upon written evidence, whether it is written records of Old English, the Germanic languages or non-Germanic languages, or post-Old English but pre-20th century English. Furthermore, when it is also considered that the surviving, contemporary documents (manuscript or epigraphic) recorded in Old English constitute our only direct and irrefutable evidence of, and for, Old English, it is

obvious that, of the means available to us of recovering the phonology of Old English, the careful examination, analysis and interpretation of the synchronic evidence available in these records of Old English spelling offers the best foundation upon which to base conjectures about Old English phonology.

CHAPTER 2:

AMBIGUITIES AND BLOCKS

2.1 *INTRODUCTION*

It follows from the preceding Chapter that the question of the interpretation of Old English spelling - our primary testimony of Old English phonology - assumes crucial importance. Equally important, however, is the manner in which the interpretation, once it is made, is put forward for examination and consideration. Unless this is done unambiguously, i.e., unless the principles governing the interpretative process are stated in definite terms, or are clear from the way in which data are presented, and unless the information gained from the interpretation is presented with the aid of precise, appropriate and consistently-used notation, the findings are not wholly intelligible and are open to misunderstanding. Any claims being made cannot be assessed and, more crucially, the value of the data as phonological evidence for Old English is greatly reduced. In view of these considerations, it is perhaps surprising to find that standard, widely-available and widely-used handbooks of Old English in general treat the presentation and discussion of Old English data rather cavalierly. Campbell's *Old English Grammar* (1959) is representative in this respect (cf. §3.2 below). It is the most recent of such works in print in English. Toon (1983: 55) describes it as the "standard reference work" for "modern Anglo-Saxon scholarship" and Hogg (1988: 183-184) says: "with respect to .... Old English linguistic scholarship .... a quick glance at the list of references in articles dealing with Old English today is enough to confirm the pre-eminence of Campbell (1959)". The

ambiguities arising from such treatment and consequent blocks to gaining meaningful, worthwhile information about Old English phonology from Old English spelling will therefore be illustrated from this work.

2.2 *AMBIGUITIES OF NOTATION: ITALICS*

The rubric heading Campbell's Chapter 1 - *Writing, Orthography and Pronunciation* - might lead the user of this book to hope that the relationship between palaeography, spelling and phonology will, in this Chapter, be elucidated. He might also expect that that holding between the later two in particular would be given a systematic treatment in the course of which points of convergence and any of divergence in Old English graph ~ phone relationships would be clearly stated and that such statements would be aided by the introduction and use of a methodical scheme of notation. Campbell begins thus (1959:§30):

> The Old English vowel system was normally expressed with the following symbols, which all express both long and short sounds:
>
> | | | | | | |
> |---|---|---|---|---|---|
> | *Back vowels*: | a | o | u | | |
> | *Front vowels*: | æ | e | o | oe | y |
> | *Diphthongs*: | ea | eo | io | ie | |

He goes on (§§32-35), "*a* represented a back sound ....; "*o* .... represented a rounded back vowel ...."; "*u* represented a rounded back close vowel ...."; *æ, e, i* represented front sounds, distinguished by their height ....". In these paragraphs, Campbell's approach is, quite reasonably, to treat spelling and phonology as two separate, but related entities. His presentation of a graph followed by a statement and discussion of its likely phonological referent, together with illustrations drawn from Old English usage, is what would be expected by the user/reader of a work like this. So, for instance, "*dagas* days, *sacu*

strife, *faran* go, *habban* have" all appear in §32 in support of Campbell's description of the graph <a>.

At this point, before continuing to examine Campbell's use of italic symbols, it might be well to look briefly at his examples with a view to finding out, since Campbell does not tell us, just what they exemplify in relation to the <a> graph. Presumably they are given by Campbell to illustrate points of convergence in Old English between the spelling symbol <a> and a phone [a] ([ ] are used throughout this discussion, unless otherwise specified, to represent broad phonetic values). This is the most probable sound value deducible from Campbell's §32 description "open advanced back"; furthermore it is (unusually) specified as such in his §67. But is this what Campbell's examples show? At first glance, they do - all four contain the graph <a>. A second, closer look reveals, however, that <a> in *dagas, faran* and *habban* occurs twice in each word form. Campbell makes no comment on this and so leads the reader to believe that both instances in each word form do indeed exemplify the <a>:[a] correspondence he has set up. This is not the case though as emerges if the reader progresses to §49, and only then if he thinks or cares to cross-refer between the two paragraphs. In the latter paragraph, Campbell informs us that (1) the graph <a> could and did represent both stressed and unstressed vowel segments in Old English; (2) when representing an unstressed vowel, the sound value of the graph <a> would "be only approximately the same as in accented syllables"; and (3) "in l[ate] OE unaccented *-a, -u, -o* all fell together in one sound and the three symbols are interchangeable in some manuscripts ...." (on this point, cf. also his §§377-379).

If we return to §32, we find that Campbell gives no indication of the chronological period to which his examples belong, so we do not know whether or not the second-syllable <a> graphs are merely orthographic, i.e., whether or not they are drawn from a manuscript or manuscripts in which <a>, <u> and <o> interchange in unstressed syllables (cf. his §49 allusion). Neither does he specify which occurrence of <a> - in stressed vowel position or unstressed vowel position - he wants to draw attention to in the three word forms previously cited. The weight of probability, and of Old English scholarly tradition, suggests the former, but Campbell does not say this. Indeed, it is difficult to tell what he means from his description of the phonological context of the graph <a> in Old English words (or perhaps his description - which follows - is intended to relate rather to lexical occurrence?): "*a* .... occurred chiefly before a back vowel of the following syllable" (§32). This is insufficient to guide the reader, for two reasons. First of all, Campbell uses the compromising, downtoning adverb *chiefly* and he succeeds so well in qualifying his statement that the reader is led to suppose that <a> in *sacu* supports the bulk of his statement and that *dagas, faran* and *habban* have been specially chosen because of the dual occurrence of <a> to illustrate the *chiefly* part of his statement, i.e., that <a>:[a] can also occur in the second syllables of disyllabic words. Secondly, even if Campbell's wavering *dictum* did make the reader focus his attention on the <a> of the first syllable of each of these examples and induce him to ignore the second-syllable occurrences of <a>, it is still by no means clear that Campbell is here talking about stressed vowels. As noted above, he does not tell us this. In addition, the <a> graph can also be found, in exactly the phonological context specified by Campbell, *viz.*

/-$V [+back], in Old English lexemes where it functions as the spelling referent of an unstressed vowel. It occurs, for instance, in words containing the unstressed prefix *a-* like:

(14)

Prepositions - *abūton* 'around, about';
adūne 'down' (that <a> represents an unstressed vowel here is evident in the reduction, because of loss/lack of stress of the prefix *of-* to *a-*, cf. the equivalent, unreduced form *ofdūne*; here <a> appears in an unstressed syllable /-stressed V [+back] [u]:<u>).

Verbal Forms - *abād* 'I/he/she/it awaited';
agalan 'to sound forth/ring out/sing', cf., with comments as above, non-reduced, related infinitive ***ongalan*** 'to charm'. These examples both show <a> representing an unstressed vowel /-stressed V [+back] [a]:<a>;
agol 'I/he/she/it sang';
astah 'I/he/she/it ascended'.

It is ironic that Campbell himself, in §26, cites the last two words precisely because the graph <a>, which occurs "before a back vowel of the following syllable" (1959: §32) represents an unstressed vowel. Yet, only six paragraphs further on, when Campbell uses the phrase just quoted, he seems to have overlooked completely the possibility of confusion arising for the reader over stressed or unstressed vowel reference. This examination has therefore revealed various discrepancies between the factual content of Campbell's statements, in this case about the Old English graph <a>, and the Old English data he adduces, in this case within §32, in support of them, i.e., between content and interpretation or approach.

2.1.1 These paragraphs (32-35) also show Campbell tacitly instituting a practice whereby Old English spelling symbols are presented and are to be identified as such by the reader through the use of italics.

(Campbell's italics, in use and denotation, correspond exactly to the boldface type employed in standard grammars of Old English, e.g., Wright and Wright (1925), or Sievers (1879). Points made during the discussion below about Campbell's italics will therefore apply equally to this standard boldface type). Thus, individual Old English graphs are italicised as in the instances quoted already. Campbell maintains this practice and further encourages the reader to equate the use of italicised symbols with the presentation of spelling data in these paragraphs by citing in italics the Old English lexical items which contain the graph under consideration - *dagas, sacu,* etc. just discussed exemplify this, as do "*god* god, *gōs* goose", illustrating Old English ⟨o⟩ (§33) or "*dæg* day"; "*helpan* help" or "*fisc* fish" offered by Campbell as examples of Old English ⟨æ⟩, ⟨e⟩ and ⟨i⟩ respectively (§35). Campbell's next paragraph reads:

> *oe* and *y* represented front rounded vowels, both short and long. *o͡e͡* is unrounded early in the history of the language in some areas ...., while *y͡* is unrounded in one district after another .... since *y͡* is usually a fronting of *u͡*, and *o͡e͡* of *o͡*, and since the unrounding of *y͡* is usually *i͡*, and that of *o͡e͡* is always *e͡*, it is clear that *y͡* was close and *o͡e͡* half-open .... .
>
> *(Campbell 1959: §36)*

Because Campbell has established in the preceding four paragraphs an italic ~ spelling symbol equation, the reader naturally expects this to be sustained in the paragraphs that follow. This is what he finds in the first sentence of §36. In the remainder of the paragraph, however, italic symbols do not correlate with spelling ones: it is not usual to speak of spelling symbols, e.g., Campbell's "*o͡e͡*" and "*y͡*" being "unrounded" or to refer to them as being "fronting[s]" of other spelling symbols (as in "*y͡*" is usually a fronting of *u͡*") or to describe them as being "close" or

"half-open". Campbell seems therefore, without any indication that he is doing so, to be using italic symbols here to represent phones. Only if the reader assumes this can he make any sense of these statements. Does Campbell intend then that the reader should now dissociate italics from spelling symbols and associate them instead with phones? His next paragraph (§37) provides an answer:

> The symbols *ea, eo, io* represented partly the sounds developed from the West Gmc. diphthongs *au, eu, iu.* .... The West Gmc. diphthongs might be expected to develop to OE *æu, eu, iu,* and we find such spellings in early texts. Afterwards, the second element of all these diphthongs was lowered .... .

The opening line of this extract shows Campbell reverting to his first correlation of italic ~ spelling symbols. But again, within the same sentence and without notice, italics take on a phonological meaning - Campbell's use of the word *diphthongs* tells this and at the same time corroborates the supposition made just above. From this chopping and changing it appears that italic symbols in Campbell's *Grammar* have the dual function of representing both Old English spelling symbols and phonological referents and that their function is with no warning constantly shifting from the one to the other. Apart from the disorientating effect this practice has on the reader (assuming, of course, that he has in fact noticed it, despite Campbell's silence on the matter) its corollary is that Campbell here, and as a matter of course throughout his *Grammar* (as will emerge shortly), fails to distinguish between the presentation of Old English spelling and phonological data.

2.1.2 This notational equivalence of spellings and phonological segments is a serious failing. At best it is confusing for the reader who is trying to interpret and assess the information Campbell seeks to convey by use of these italic symbols. So, for example, a seemingly

simple statement like "$\breve{u} > \breve{y}$" (§190), with reference to the sound change *i*-umlaut (cf. §1.4 above), can be interpreted in at least three ways:

1. at some time in the history of written Old English (i.e., between c. the late 7th century and c. the late 11th century), the graph <u> representing a particular phone, long or short, was replaced in writing by the graph <y>;

2. at some time in the history of written, or of Pre-literary Old English, the phones [u(:)] became the phones [y(:)];

3. at some time in the history of Old English, the phones, long and short, which would have been represented by the graph <u> in a Roman-letter orthography, had it been extant in the Pre-Old English or the West Germanic periods, became the phones represented by the graph <y> in a later orthography (the one preserved in Old English records).

Campbell's use of italics with double function has rendered this statement "$\breve{u} > \breve{y}$" (and all similar ones) well nigh useless as a source of information about Old English spelling and phonology because it cannot be interpreted in any one way by the reader (cf. Harvey 1985: Ch.1 for the same concerns with regard to the presentation of phonological information about Old Irish).

2.1.3 Ambiguity as well as confusion arises from Campbell's italics. For instance, in §447 we read:

> The interchange of *h* and *g* in forms like *burh-burge* leads in l[ate] W[est]-S[axon] to forms like *hēage* .... from *hēah*, ... (where *h* is from West Gmc. *χ* ....).

Here Campbell's parenthesis, intended presumably to help the reader who might be puzzled by a form like *hēah* where *h* appears twice, has the opposite effect. Is Campbell's parenthetic italic *h* a spelling or a phonological symbol? He has said in his introductory *Note on Symbols* that the symbol "*χ* = ch in Scots *loch*"; if the reader is fortunate enough to have first-hand experience of Scots dialect he will be able to

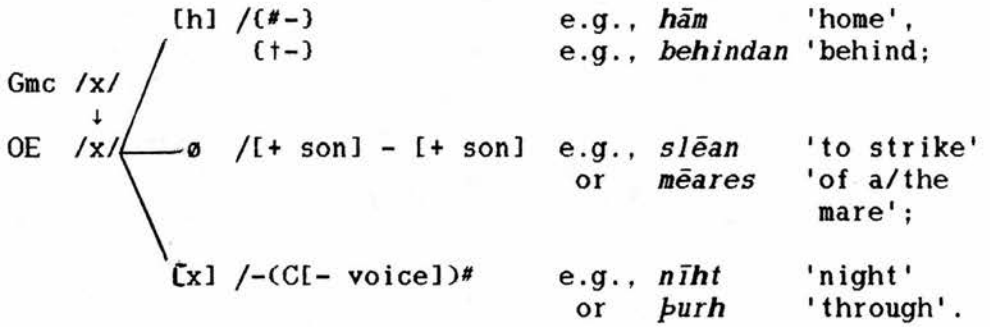
gather that Campbell intends χ to signify the voiceless velar fricative [x]. He states here that "*h* is from West Germanic χ ....". Since a spelling cannot logically be etymologically-derived from a sound value Campbell must mean *h* to signify not a spelling, but a sound value here. Presumably the sound value in question is the voiceless glottal fricative [h]. The parenthesis must, in that case, refer to the first occurrence of *h* in the word *hēah*: [h]:<h> occurred in Old English, as far as can be ascertained, as an allophone of /x/ only in word- or foot-initial position; elsewhere the graph <h> seems to have represented the voiceless velar fricative allophone [x] of /x/ (cf. Hogg MS.: §2.60; Wright and Wright 1925: §§325-329). Hence, the first <h> in <hēah> represents [h], and the last, [x]. Campbell's citation of the alternative spelling form <hēage>, which only has one <h> graph - in word-initial position - tends to confirm the reader in his choice. The subject-matter of this paragraph, however, purports to be the interchange of <h> and <g> in word-final position (assuming Campbell is referring in the first line of his paragraph to graphs). Campbell's subject-matter and parenthesis therefore contradict each other and the reader is still unsure which of the two - word-initial *h* or word-final *h* - is the antecedent of Campbell's parenthetic, italic *h*.

Even if the reader is prepared to accept the absurdity of a spelling being etymologically derived from a sound value and agree to regard parenthetic, italic *h* as a graph, his problem is no nearer being solved. Does Campbell intend <h> to represent its Present-day English sound value /h/, or its reconstructed Old English ones /x/ with its [x] and [h] allophones? (Campbell himself in his *Note on Symbols* and in, for instance, §§33, 35, etc., appeals to Present-day English sound values and

so the reader must also take these into account (cf. §§2.2.1, 2.3.4.7 below on the unwisdom generally of pronunciation guides like these)). If the reader opts for PE /h/ or OE [h], he finds once again that, as just described, Campbell's subject-matter and parenthesis contradict one another. if he opts for OE [x], which would coincide with the word-final occurrence in *hēah* of the graph <h>, he can make subject-matter and parenthesis partly agree. But what of the word-initial occurrence of *h* in *hēah* ? - <h>:[h]?

In any case, as Campbell's parenthetic statements stands it is pointless. Regardless of whether the reader interprets the italic *h*, with reference to *hēah*, as OE [h] or as OE <h>:[h] or [x], the resultant phone(s) can have only one source anyway, *viz.* Gmc /x/ because

(15)



(cf. Campbell 1959: §§461-465; Colman 1983a: 42-45; Hogg MS.: §2.60 and §3.2.2.1 below).

Even supposing the content of Campbell's statement did serve some purpose, it would have been rendered meaningless primarily because of the ambiguity created by the use of italics. This ambiguity is directly attributable to his failure to express what he is saying clearly by using, instead of italics which mislead, a notation, or notations, fitted for the linguistic analysis and presentation of Old English data (cf. §2.4 below). There are occasional uses of [ ] brackets in Campbell's *Grammar*. Virtually all instances of their use occur in the following

paragraphs: 50.4, .5; 51; 53; 57.1, .3, .4; 58, 61, 62; 67; 68; 70; 431; 440; 486. These uses of [ ] brackets are very welcome, but such notation is not used either consistently or at points where the reader has greatest need of it; compare, for example, the use of [ ] in §440 for a fairly straightforward statement - an undotted *sc* and *c* would have sufficed here (cf. §2.4 below on the use of diacritical dots) - with the great confusion caused for the reader by their complete absence in Campbell's account of the developments in Old English of Gmc /k/, /γ/ and /j/ in §§426-439. Furthermore, when Campbell does use [ ] brackets, it is uncertain whether they enclose transcriptions which are narrow phonetic (i.e., allophonic) or broad phonetic (i.e., without commitment to phonemic status) - no mention is made of their purpose or use in his *Note on Symbols*. Campbell's primary, all-purpose notation is, however, italic symbols, a point complained of by Bazell (1960) in his *Review* of Campbell's *Grammar*. These, as the discussion above has shown, are quite plainly inadequate.

2.2 *ABECEDARIANISM AND ASTERISKS*

The final point made in the last Section is in a sense conceded by Campbell who, as a means of meeting this obvious notational need uses devices like diacritic dots placed over *c* and *g* (on which, see §2.4 below) or those symbols he lists in his prefatory *Note on Symbols*. This Section and the next will be devoted to examining how these devices are used and the implications of their use for the interpretation of Old English spelling and phonology.

2.2.1 *Abecedarianism*

Campbell's *Note on Symbols* (1959: facing p. 1) reads thus:

> .... In writing pre-literary forms and in discussing their sounds the following consonant symbols are used:
>
> i̯, u̯ = y, w in N[ew] E[nglish] *yet, wet.*
> χ = ch in Scots *loch.*
> ʒ = the voiced spirant corresponding to χ.
> þ,ð = the voiceless (þ) and the voiced (ð) spirants in NE *thin, then.*
> v = approximately the voiced spirant in NE *vine*, but perhaps bi-labial, not labio-dental.[1]
> ŋ = the velar nasal in NE *sing.*
>
> Pre-literary forms and forms of the literary period not recorded in manuscripts are marked *. ....
>
> [1] This symbol is used in reconstructed forms instead of b.

Before looking at how Campbell actually uses these notational devices it should be observed that they are inherently ambiguous (cf. §2.3.4.7 below further on pronunciation guides/*abecedaria* like this). The symbols collectively are drawn from a variety of sources and most are individually attributable also to more than one source. So, e.g., χ comes from the I.P.A. (which was designed solely for representing phonic values), as do i̯, u̯ and ŋ. ʒ, þ and ð are all symbols found in Old English manuscripts (i.e., spelling symbols). The first and last of these symbols - ʒ and ð - are, in addition, I.P.A. (hence phonic) symbols. *v* has two sources: the Present-day English Roman-alphabet (a spelling source) and the I.P.A. (a phonic source). As a consequence of such inconsistencies, these notational devices carry automatically and simultaneously several heterogeneous and chronologically-different significations. The principles (if any) which determined Campbell's choice of these symbols are therefore confused. As a result, his use of the symbols can be desperately confusing for the reader.

Moreover, Campbell's use of *, which in the main follows standard practice, is problematic (cf. also the discussion of ***boþm*** in the next sub-Section). It indicates (cf. again his ***Note***) "pre-literary forms" as well as "forms of the literary period not recorded in manuscripts". An asterisk can therefore by definition appear before forms of the Germanic period (pre c. 450 A.D.) and the Pre-Old English period (c. 450 - c. 700 A.D.; still "pre-literary"), as well as the Old English period (c. 700 - c. 1100 A.D.; the "literary" period). Such a broad, general classification under one heading of over seven centuries of linguistic development (the chronology of much of which is uncertain) is bound to produce ambiguity, imprecision and inaccuracy. These can only be increased when it is considered that just four of these centuries are (imperfectly) documented - this results in * being applied to non-attested, reconstructed phonological forms as well as to spelling ones. The interpreter of one of Campbell's asterisked forms is therefore faced with the difficulties of discovering whether the reconstructed form is intended to be typical of the Germanic, the Pre-Old English or the Old English stage of linguistic development and whether it is a spelling or a phonological reconstruction.

2.2.2 *Asterisks: **boþm***

The potential ambiguity to which attention was drawn above is realised in Campbell's use of the symbols presented in his ***Note*** and also in his use of the asterisk. In §420, we find this statement:

> .... In Angl[ian] .... *þl, þm* remained after short vowels and the spirant became voiced by a normal process .... : ***boþm*** .... .

The asterisk prefixed to this form marks it as a non-attested form, i.e., one which he has reconstructed. His use of the Old English dialect

label "Angl[ian]" in relation to the form tells, however, that it cannot be a reconstruction of the Germanic period. It must therefore belong either to the Pre-Old English or the Old English periods - we cannot pin down the chronology more than this. Further problems of interpretation remain, anticipated at §2.2.1 above, with regard to *þ*. Because Campbell has chosen to use what is an Old English spelling symbol (found in manuscripts and runic inscriptions) as a phonological symbol (in *"þl, þm"*), it is impossible to determine whether **boþm* is intended by him to represent a sequence of reconstructed phones or reconstructed graphs.

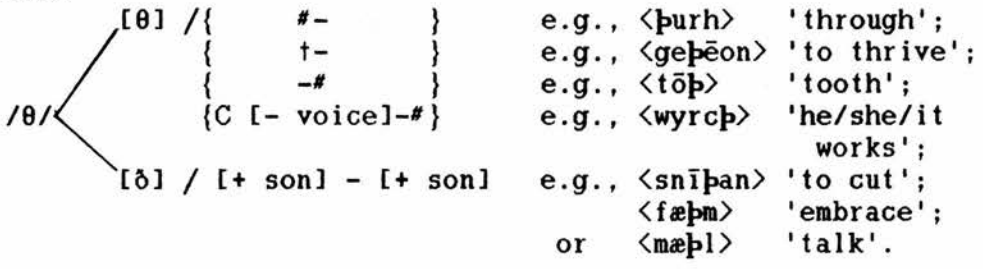
If it is the former, **boþm* must be supposed to be Pre-Old English: Campbell's *þ* represents "the voiceless .... spirant in NE *thin*" (1959: *Note*), i.e., the voiceless dental fricative [θ] (cf. Gimson 1980: 183-185); furthermore, the subject-matter of his §420 is the voicing of [θ] → [ð] /V-L or /V-N in Anglian. Hence, **boþm* could represent a postulated Pre-Old English phonic sequence before the voicing development.

If **boþm* is, on the other hand, a sequence of reconstructed graphs, it could represent either a form which would probably, using an Old English orthographic standard (on which, see §2.3 ff. below), have been spelt like this had such a form been recorded during the Old English period. Or, alternatively, it could represent a hypothetical Pre-Old English spelt sequence presented by Campbell as he thinks it would have been written in Pre-Old English using a postulated standard Pre-Old English orthography. Whether **boþm* is a hypothetical Old English or Pre-Old English spelling form, interpretation of it is not easy. In Old English manuscripts (and runic inscriptions) ⟨þ⟩ does not have only one phonic referent - though Campbell's *þ*:[θ] and ð:[ð] correspondences

misleadingly imply that Old English manuscript or epigraphic usage did work like this.

Old English <þ>, interchangeably with <ð> (though cf. §2.3.3.1 and §3.2.2.1 below), represented two separate phones with different phonological status thus:

(16)



Campbell in his *Note* says nothing about whether his symbols represent phonemes or allophones, neither or both. Consequently **boþm* as a hypothetical spelling form can be interpreted to give three phonic sequences which differ in chronology and phonological status:

(17)

/boθm/	Pre-Old English;	before the voicing change;
/boθm/	Old English;	before or after the voicing change;
[boðm]	Old English;	after the voicing change.

2.3 *'STANDARDS' AND SPELLING*

2.3.1 *Reconstructed Spelling Forms and 'Standard' Spelling*

The problems of interpretation thrown up by the form **boþm* raise serious doubts about the wisdom altogether of presenting, as a source of phonological information about Old English, reconstructed spelling forms. It is a hindrance rather than a help - a phonic sequence reconstructed by Campbell has been converted by him into a hypothetical graphic sequence which then has to be reconverted into phones by the reader (cf. King 1986: §I.C for further discussion of this problem of

transliteration and reconversion; though this paper deals specifically with Old English runes, problems similar to those being considered here are encountered). However, reconversion from hypothetical graphic sequences such as those put forward by Campbell is impossible. This is because Campbell, following normal practice, simultaneously appeals to a choice of no less than three different orthographic 'standards', as well as non-specific ones.

Each of these three 'standards: (a) Proto Germanic; (b) Pre-Old English and (c) Old English, is problematic in itself, as will now be illustrated:

(a) and (b) e.g., "Gmc. **fotiz*" (Campbell 1959: §331.2) or "Prim.OE **milykī*" (Campbell 1959: §331.3). The phones initially posited by Campbell which underlie the graphs in forms like these cannot be recovered by the reader for obvious reasons. No standard Roman-letter orthography, indeed no spelling system of any kind (other than that/those of Old Norse runic inscriptions) exists for Proto Germanic or for Pre-Old English. The reader cannot therefore refer to a pattern or key which would help him decipher and analyse such sequences of reconstructed graphs. Moreover, the reader is not told, and so cannot know, on which spelling norm(s) Campbell, in the absence of Germanic and Pre-Old English orthographies, has based the reconstruction of such forms. All of the graphs in the two examples given occur in Old English and in Present-day English - problems occur in attempts to reconvert graphs derived ultimately from either source (for Old English, cf. again §2.2.2; for Present-day English, see §2.3.4.7 below). When the reader is not given any guidelines as to the orthographic system being

invoked, it follows that he cannot hope to recover the underlying phones.

(c) e.g., "OE **clēa*" (Campbell 1959: §120.3). Discussion of this form will show that, even when Campbell prefixes reconstructed spellings with a tag, here *OE*, which supposes an actual spelling system, problems of the kind typified by **boþm*, and others (cf. §2.3.4 below), intervene to prevent the originally-posited phones being retrieved. The digraph *ēa* used by Campbell is singularly unsuited to be representative of either Old English spelling or phonology. There are four reasons for this:

1. *ēa* is employed by Campbell in this form to represent, presumably [æ:ɑ], the reflex of Gmc [au] (the length macron is not original to manuscript usage, so has been omitted from all spelling forms in the discussion that follows). The digraph ⟨ea⟩, however, is not a wholly typical diachronic or diatopic spelling for this phone. For instance, the reflex of Gmc [au] is spelt variously in Northumbrian manuscripts. In the manuscripts of Bede's *Historia Ecclesiastica Gentis Anglorum*, personal names (cf. Ström 1939: xxvii-xxx, 99) containing this reflex appear spelt ⟨eo⟩, e.g., ***Eodbald*** (Cotton MS. Tiberius Axiv, 8th - 9th century), ⟨aeo⟩, e.g., ***Æeodbaldo/Æeodbaldum*** (MS. as just cited, plus Cotton MS. Tiberius C.ii, 8th century), or ⟨æa⟩, e.g., ***Æata*** (Namur MS, 8th century). The late Northumbrian *Gloss* to the *Rushworth Gospels II* (Bodleian MS. Auct.D.2.19 (3946), 10th century) also frequently uses the digraph ⟨eo⟩, e.g., ***heofud*** 'head', for the reflex of Gmc [au] (as well as for [e:o], so ***heofdon*** 'we/you/they lamented/wailed'). In earlier Mercian manuscripts, the spellings ⟨aeo⟩ and ⟨eo⟩ occur, e.g., ***genaeot***

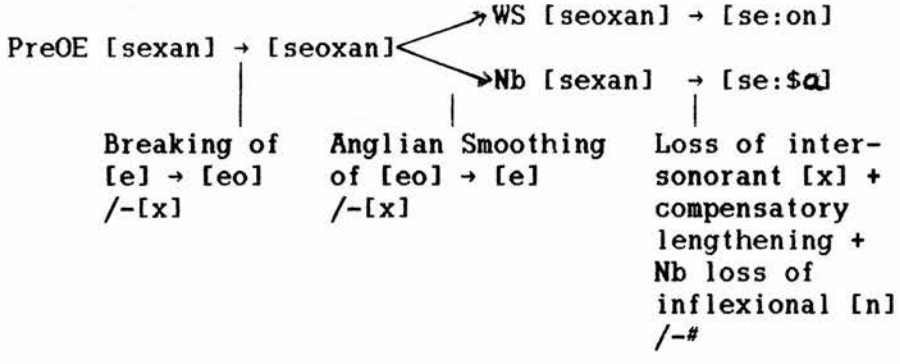
'companion', *eorscripel* 'earscraper' - both forms from the *Corpus Glossary* (Cambridge, Corpus Christi College, MS.144, late 8th or early 9th century). The digraph <eo> recurs in the mid 9th century *Glosses* to the *Vespasian Psalter* (B.M. Cotton MS. Vespasian A.i), e.g., ***heofud*** 'head', ***deode*** 'dead (dat sg)'.

2. [æ:ɑ], represented by the digraph <ea>, has a greater synchronic frequency of occurrence in West Saxon than in the other three dialects. Only in West Saxon, for example, can [æ:] (i.e., $\bar{æ}^{1}$ ← Gmc [æ:] (cf. non-West Saxon reflex [e:]) undergo Breaking to [æ:ɑ]:<ea> /-[x]. Thus *near* 'nearer' (with loss of intersonorant [x]) is a form characteristic only of West Saxon. The corresponding non-West Saxon form is *neor* with <eo>:[e:o] ← [e:], the non-West Saxon reflex of Gmc [æ:] by Breaking /-[x] (cf. Campbell 1959: §§128, 151). Anglian Smoothing (which was a Pre Old English development, cf. Campbell 1959: §§222-233; Kuhn 1961: §2.21), does not, as its name suggests, occur in West Saxon. In Northumbrian and Mercian dialect texts, therefore, /-[k,ɣ,x]:<c,g,h>, with or without an intervening [r]:<r> or [l]:<l>, the graph <e>:[e:] (← [æ:ɑ] by this Smoothing) appears, while contemporary West Saxon and Kentish texts retain [æ:ɑ] (← Gmc [au]):<ea>, e.g., Angl *heh* 'high', cf. WS/Kt *heah*.

3. The digraph <ea>, because of dialectal developments has a greater number and variety of phonic referents in non-West Saxon dialects, by comparison with West Saxon, where it predominantly represents [æ:ɑ]. In late Northumbrian texts, such as the *Glosses* to the *Lindisfarne Gospels* or the *Rituale*

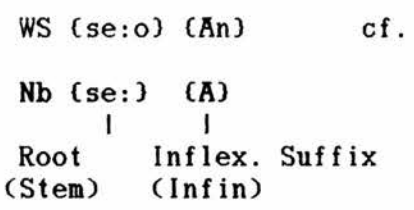
Ecclesiae Dunelmensis (Durham, MS. Cathedral A.IV.19), <ea> is employed not only for [æ:α], but also for a diphthongal reflex of Gmc [eu], e.g., ***ceasa*** 'to choose', and of Gmc [iu], e.g., ***ðeafas*** 'thieves' (cf. Go nom sg ***þiubs***), and cf. corresponding WS [e:o]:<eo>. In Northumbrian, <ea> occurs also to represent a disyllabic sequence of (presumably) [e:] + [α], as in ***sea*** 'to see', cf. WS ***seon***, developed thus:

(18)



The differing end products, in terms of phonological structure, of these forms, *viz.* the Northumbrian disyllabic sequence, cf. the West Saxon long diphthong, are explicable by reference to morphological structure. Campbell's analysis of this and similar Northumbrian forms (1959: §§234, 238.2, 46) ignores such considerations and he is forced, as a result, to posit, implausibly, diphthong formation across a syllable and morpheme boundary for these, cf. Colman (1988(a): 154-155.). The morphological structures for these forms:

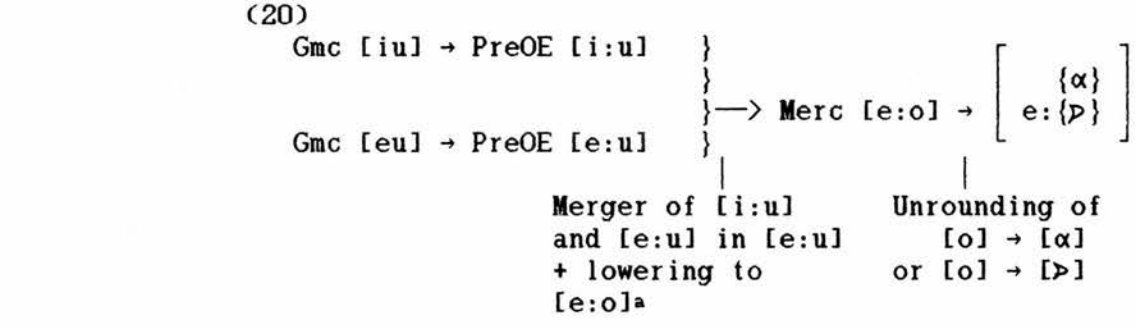
(19)



illustrate the principle of variable allomorphic realisation of the infinitival inflexional morpheme (An) - for explication of this and for notation, cf. Colman (1983a) and (1985b). The unstressed vowel [α] of the infinitival morpheme (An) is deleted when it follows a stem ending in a long diphthong - as in the West Saxon form - but realised after any other stem - as in the Northumbrian form.

The same disyllabic sequence [e:] + [α]: <ea> occurs also in Mercian, e.g., *gesean* 'to see', derived as for the Northumbrian form, but for the retention in Mercian of the /-# [n] of the infinitive. In this dialect also, particularly in the *Vespasian Psalter*, <ea> appears to represent a diphthongal sequence [e:α] or [e:ɒ] which is the reflex of Gmc [iu] and [eu] thus (cf. Campbell 1959: §281):

(20)



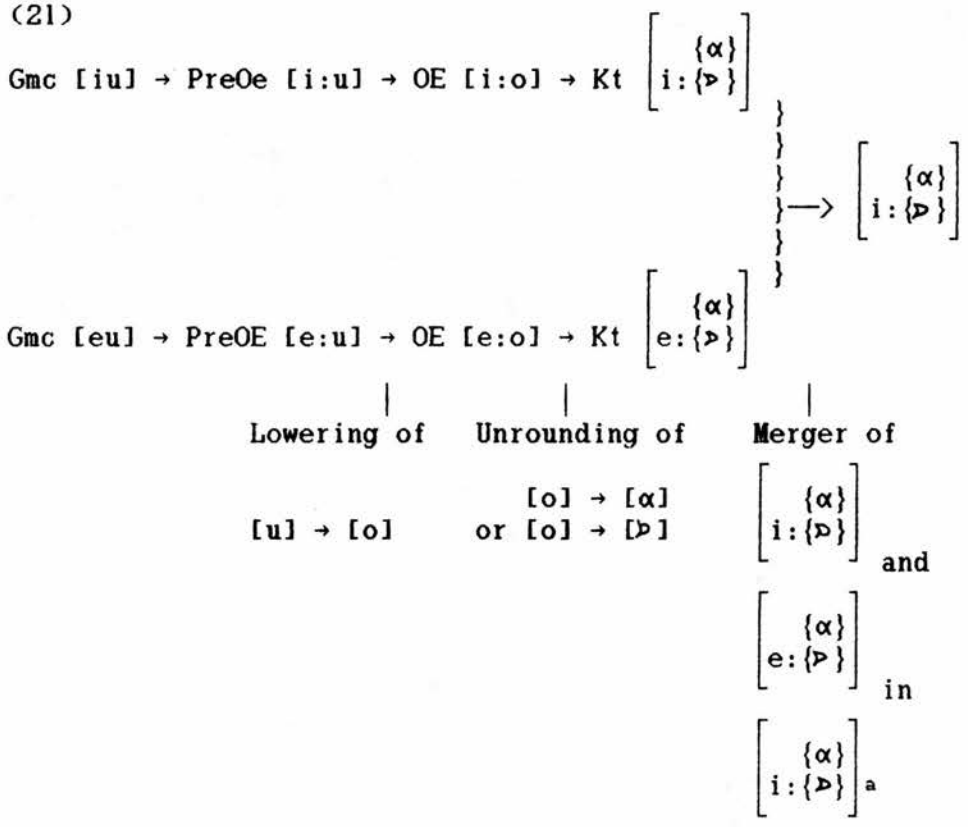
a - to comply with the Old English principle of DHH (cf. Lass and Anderson 1975: 34-35, 91, 212); see also Campbell (1959: §294).

So, e.g., *ðeastrum* 'darkness (Dat Plu)', where <ea> represents the reflex of Gmc [iu]; *neasade* 'he/she/it drew near', where <ea> represents the reflex of Gmc [eu].

Finally, <ea> in Kentish, apart from representing [æ:α], is found, interchanging with <ia>, to represent a diphthong [i:α] or

[i:ɒ], which derives ultimately from Gmc [iu] and [eu] in this way (see Campbell 1959: §§280, 297):

(21)



a - <ia> is the most prevalent spelling which suggests this output, rather than one with [e:] as the first element.

4. Even in West Saxon, <ea> does not always represent the diphthong [æ:ɑ]. In lexemes like *sceap* 'sheep', *ceace* 'jaw', *gear* 'year', the <e> in <ea> most credibly functions as a front-vowel diacritic, indicating a preceding palatal consonant (in the examples cited, [ʃ], [t͡ʃ] and [j]) respectively, plus the vowel graph <a>:[æ:]. Campbell (1959: §§185-186), following the traditional interpretation of this digraph in such environments, accounts for it in terms of a typically-West Saxon sound change "Palatal Diphthongisation" (with alleged sporadic occurrence in Northumbrian). But, as Colman (1985a: 13) points out, the

"addition of a non-syllabic back segment to a syllabic front one [*viz.* [æ:] → [æ:ɑ̯]] is not a likely result of the putative influence of a palatal (front) consonant that precedes the front syllabic". In the light of Colman's argument and that of others (e.g. Stockwell & Barritt 1951; 1955) more likely is the palatal-diacritic interpretation of ⟨e⟩ in ⟨ea⟩ - this use of ⟨e⟩ is attested elsewhere in Old English spelling practice[3].

2.3.2 *West Saxon as an Orthographic 'Standard'*

Further to §2.3.1, for Campbell to be able to suggest a reconstructed Old English spelling form and for the reader to be in a position to reconvert it, there has to have been a standard Old English orthography to which reference can be made. The idea that there is such a standard is traditionally promulgated in works on Old English: in grammars such as Wright and Wright (1925: §3), Campbell (1959: §§16-17), Quirk and Wrenn (1957: §§5-6) or in dictionaries like those of Hall (1894) and Sweet (1897).

But difficulties attend this notion. First-of-all, there is no scholarly consensus on what constitutes the basis for this 'standard' orthography. Opinion is divided, as detailed below, between 'early' West Saxon (c. 700 - c. 900) and 'late' West Saxon (c. 900 - c. 1100).

2.3.2.1 *'Late' West Saxon*

This is favoured as a 'standard' by Wrenn (1933: 84-88) and by Quirk and Wrenn (1957: §§5-6). It is said to be exemplified in works such as Ælfric's *Grammar, Homilies*, etc., and other contemporary manuscripts like those in which the bulk of extant poetry written in Old English is preserved - the *Junius* manuscript, the *Vercelli Book* and the *Exeter*

Book (for details of manuscripts, see Wrenn 1933: 85 ff.; Sweet 1967: *passim* and Ker 1957: *idem*).

Received opinion has it that there was a standard orthography for Old English founded upon this 'late' West Saxon:

> .... [T]here was a common and universally used West Saxon *Schriftsprache* in the late tenth and early eleventh centuries, as well known in York as in Canterbury .... .
>
> (Wrenn 1933: 85)

> After 900 the use of West-Saxon as a standard reduced the writing of Mercian ....;
> Even when West-Saxon had become a well-established literary dialect, and was used as something of a standard written language .... .
>
> (Campbell 1959: §§13, 17)

> ....[T]owards the end of the tenth century .... a remarkably rigid spelling system [based on the] West Saxon scribal tradition [was] in use throughout England .... .
>
> (Scragg 1974: 6, 7)

And, more recently, Gneuss (1972: 63) writes of:

> a highly-developed written standard language, known and used in all regions of the country .... [*viz.*] late West Saxon.

Lutz (1984: 51) states that

> [L]ate West Saxon .... was used not only by West Saxon scribes and authors of [the late tenth and early eleventh centuries] but also by their contemporaries from other dialect areas .... . Late West Saxon thus cannot be looked upon as a regionally restricted dialect but - with certain reservations [not expressed in Lutz's paper] as a written standard current in all of late Anglo-Saxon England.

There are two claims being made in these quotations. The first is that there was a standard 'late' West Saxon orthography, i.e., between c. 900 and c. 1100 there was a consistently-used, regularised and uniform spelling system for the writing of West Saxon. The second claim asserts that this 'late' West Saxon orthographic standard was used as an

orthographic standard, i.e., an established model for imitation, for the writing of Old English generally. Neither claim can be accepted. The former must be disputed because the existence of a standard 'late' West Saxon orthography is doubtful. Campbell (1959: §17) concedes this, for instance when continuing the second statement cited just above:

> [M]any ['late West Saxon'] manuscripts display a considerable non-West-Saxon element in their orthography and inflexions.

In this same paragraph, he gives some details of these manuscripts. Or, further, in his next paragraph (1959: §18):

> .... the bulk of the extant Old English verse .... mostly preserved in copies dating from c. 1000 .... [which] are predominantly late West-Saxon .... are extremely rich in dialectal forms of various kinds. ....[The manuscripts are] mixed in vocabulary, phonology, and inflexion .... .

Claim two is equally without foundation. A look at the orthography of several 10th century texts, e.g., *The Kentish Psalm* (Cotton MS. Vespasian D.vi), the Kentish *Glosses* to *Proverbs* (same manuscript), the Northumbrian *Glosses* to *the Lindisfarne Gospels* (Cotton MS. Nero D.iv) or the Mercian ones to *the Rushworth Gospels I* (Bodleian MS. Auct.D.2.19 (3946)) - should be enough to convincingly demonstrate that, on the contrary there was not "a single stable orthography" (cf. Scragg 1974: 7) for Old English at this time and that, moreover, "late West Saxon" was not always or only "used" as an orthographic standard by scribes "from other dialect areas" contemporary with late "West Saxon scribes" (cf. Lutz 1984: 51).

2.3.2.2 *'Early' West Saxon*

This other putative, and oftener-invoked, 'standard' for Old English orthography is preferred by, for instance, Mitchell and Robinson (1986), Wright and Wright (1925), following Sweet (1871-1872: v, xix-xx; 1888:

§§348, 351, 412, etc.). This 'standard' was founded by Sweet (1871-1872, 1888) upon three texts: King Alfred's translation of *Gregory's Cura Pastoralis* (Hatton MS. 20 and fragments of Cotton MS. Tiberius B.xi(C)); his translation of *Orosius* (Lauderdale MS.) and the Parker MS. of *The Anglo-Saxon Chronicle* from the beginning to the entry for 924.

Wrenn gives four very sound reasons for rejecting the idea of 'early' West Saxon having, and being, an orthographic standard:

(1) the 'Alfredian' manuscript material on which 'early' West Saxon is based reflects the language of King Alfred's reign (871 - 899) and belongs therefore "only to the last years of the E[arly] W[est] S[axon] period" (1933: 70) and would, as a result, be "to some extent transitional" (1933: 78);

(2) of the three texts upon which 'early' West Saxon is primarily based, only one - the *Cura Pastoralis* - survives in a complete, contemporary manuscript (the Hatton, whose preface and script enable it to be dated to between 890 and 897). The *Orosius* manuscripts date respectively from the first half of the 10th century (Lauderdale) and the 11th century (Cotton Tiberius). The Parker *chronicle* (Corpus Christi College, Cambridge, MS. 173) is late 9th/10th century (for dating, see Ker 1957: *idem* and Wrenn 1933: 75, 78). Wrenn's conclusion is that only the *Cura Pastoralis* "can strictly be held to represent the language of Alfred's Wessex in a definitely contemporary form" (1933: 78). The documents in which 'early' West Saxon is said to be recorded cannot, therefore, be said to be representative of the early (c. 700 - c. 900) West Saxon dialect.

(3) the historical considerations relating to Alfred's reign would mean that there was a good deal of linguistic hetereogeneity within his kingdom as well as the existence of various different scribal traditions of non-West Saxon origin. These conditions are largely responsible for considerable orthographic variation which is to be found in 'Alfredian' manuscripts (cf. Wrenn 1933: 71-74, 75-80; Gneuss 1972: 67-68).

(4) the spelling of the 'early' West Saxon instituted by Sweet as a 'standard' and since applied as such to Old English, is not representative of the spellings found in the 'early' West Saxon manuscripts. it contains an inconsistent mix of typical 'late' West Saxon and 'early' West Saxon spellings with 'early' West Saxon ones often being 'normalised' in line with 'late' West Saxon ones (for a definition of 'normalising', see Sweet 1888: 70), e.g., 'late' WS <eo> appears regularly instead of 'early' WS <io>. It is not, consequently, consistent with, or representative of the earliest recorded stages of West Saxon (cf. Wrenn 1933: 76-78, 79-82). 'Early' West Saxon spelling, then, for internal (linguistic) and external (historical) reasons, is not uniform or stable.

The claim that 'early' West Saxon had a standard orthography which would enable it to be applied now, and have been applied in the Old English period, as a standard to the writing of Old English cannot, in view of the aforegoing, be upheld. Moreover, there is a lack of evidence to suggest that it was viewed, or used thus in the Old English period.

Despite the counter-evidence just presented, Campbell seems to adhere to 'early' West Saxon as a standard for Old English, as may be gathered from statements like the following:

> The use of the [Old English] symbols has been mainly exemplified with e[arly] W[est]-S[axon] forms in the present chapter [I : *Writing, Orthography and Pronunciation*].
>
> (1959: 19, fn. 2)

> In this Grammar, West Saxon paradigms are presented .... .
>
> (1959: §569)

These paradigms in Campbell's *Grammar* are invariably 'early' West Saxon, as the forms of the adjectives, verbs and nouns in them show. Thus, the comparative and superlative forms of the adjective *eald* 'old' are given in §658 as *ieldra, ieldest*: they are presented with the digraph <ie>, which was used in 'early' West Saxon to represent [iə], among other things (cf. Colman 1985a, 1988a), rather than its 'late' West Saxon orthographic reflex <y>:[y], one output of the monophthongising development which operated thus:

(22)

$$\text{'e'WS [i(:)ə]} \rightarrow \text{'l'WS} \quad \begin{bmatrix} \{i(:)\} \\ \{y(:)\} \end{bmatrix} : \langle \breve{i}, \breve{y} \rangle$$

(cf. Campbell 1959: §§301, 315-317).

Similarly, 'early' West Saxon verb and noun forms like *hīeran* 'to hear' and *mieht* 'might/power' are favoured by Campbell (in §§748 and 603, 606 respectively), rather than their 'late' West Saxon reflexes *hȳran* and *miht*. The Weak Neuter noun paradigm in Campbell's §615 lists 'early' West Saxon *ēage* 'eye' with <ea> representing unsmoothed [æ:ɑ] and not its 'late' West Saxon counterpart *ēge* which has <e>:[e:], the

monophthongal output of 'late' West Saxon Smoothing (described by Campbell in §312).

Campbell's practice of appealing to 'early' West Saxon as a norm when citing grammatical or orthographic examples can only, in the absence of any statement of 'policy', or evidence to the contrary, be assumed to be the same for his reconstructed "Old English" spelling forms. The objections made earlier to such a use of 'early' West Saxon as an orthographic standard apply here also. Furthermore, as is about to be demonstrated, the 'standard' spelling system traditionally assumed for 'early' West Saxon is not, and cannot be, representative of Old English spelling practice. To use it in the way Campbell seems to, or even to use 'late' West Saxon as an orthographic 'standard' for Old English as a whole results in diachronic and diatopic discrepancies when compared with the evidence of Old English manuscript usage as will now be illustrated.

2.3.3 *'Standardisation' and Old English Manuscript Spelling*

2.3.3.1 *⟨þ⟩ and ⟨ð⟩*

Discrepancies, diatopic, but mainly diachronic, are produced in the use, for text editing purposes or those of phonological reconstruction, of the graphs ⟨þ⟩ and/or ⟨ð⟩. Campbell, for instance, (1959: §57.6) states that "*ð* and *þ* remain the usual [symbols] for the dental spirants in OE: the distinction between them is purely a palaeographical question.". Yet, this is not the case when spelling usage in Old English manuscripts is examined. ⟨þ⟩ is not found in chronologically-early manuscripts. In these, ⟨th⟩ - usually word-initially, though not invariably - and ⟨d⟩ - normally, though again not invariably - word-medially and word-finally appear interchangeably to represent the allophones [θ] and [ð] of the

phoneme /θ/ (cf. §2.2.2 above for the distribution of these allophones and see further §3.2.2.1 below). So:

(23)

e.g.		Date	Text	Dialect
<th> /#-				
tha	'then'	c. 737	*Cædmon's Hymn*[a]	Nb.
thegn	'servant'	c. 725[b]	*Épinal Glossary*[c]	Merc.
<d> /[+ son - + son]				
loda	'cloak'	c. 725	*Épinal Glossary*	Merc.
modgidanc	'mind-conception'	c. 737	*Cædmon's Hymn*	Nb.
giroedro	'rudder/helm'	c. 725	*Épinal Glossary*	Merc.
<d> /-#				
sibaed	'siftings/chaff'	c. 725	*Épinal Glossary*	Merc.

a Moore MS., Cambridge University Library, Kk5.16;
b cf. Pheifer (1974: §88) on manuscript dating;
c Bibliothèque Municipale MS. 72(2).

Moreover, <þ> is by no means a typical graph in Old English manuscript usage. Hogg (MS.: §2.59) states that "in early texts, and until the time of Alfred ð is by far the more common symbol; in the 10th c. and later *þ* is rather commoner, but is mainly restricted to initial position ....". Blomfield (1935: 95) speaks of regional variation in the time of adopting <þ>, and even failure to do so in some areas:

> .... *þ* only becomes really popular in the South, being admitted to Northern and some Midland texts only in contractions of tenth-century interlinear glosses.

The use of <þ> is, therefore, diachronically and diatopically restricted. Both facets of this observation are borne out by Old English manuscript spelling evidence. <ð> is first instanced, in the form <-paeð>, as early as 697 (or 712) in a Kentish charter (i.e., a Southern text), of King Wihtred (B.M. MS. Stowe Ch.I)[4]. <þ>, on the other hand, does not appear in manuscripts until 803, again in a Kentish charter (again, a

Southern text - Cant. Arch. MS. c.I., cf. Sweet 1885: no. 33). Also in keeping with Blomfield's statement, <þ> does not appear in, for instance, the *Glosses* to the *Lindisfarne Gospels* (cf. §2.3.2 above for manuscript details) - a text that is a primary source of evidence for late Northumbrian - except in the contraction <þ> for *þæt.* Contrary to Campbell's assertion (quoted above), <þ> is not a "usual [symbol] in OE" and ought not to be regarded and used in reconstructions of Old English forms or editions of Old English texts as if it were one.

2.3.3.2 *<b>*

The use of <b> as a 'standard' Old English graph (cf., e.g., Campbell 1959: §420, fn. 5 "OE ***bodl***"), also produces diachronic discrepancy, but of another kind. In chronologically-early Old English, <b> appears in manuscripts to represent the voiced bilabial fricative [β] inherited from Germanic. So, for instance,

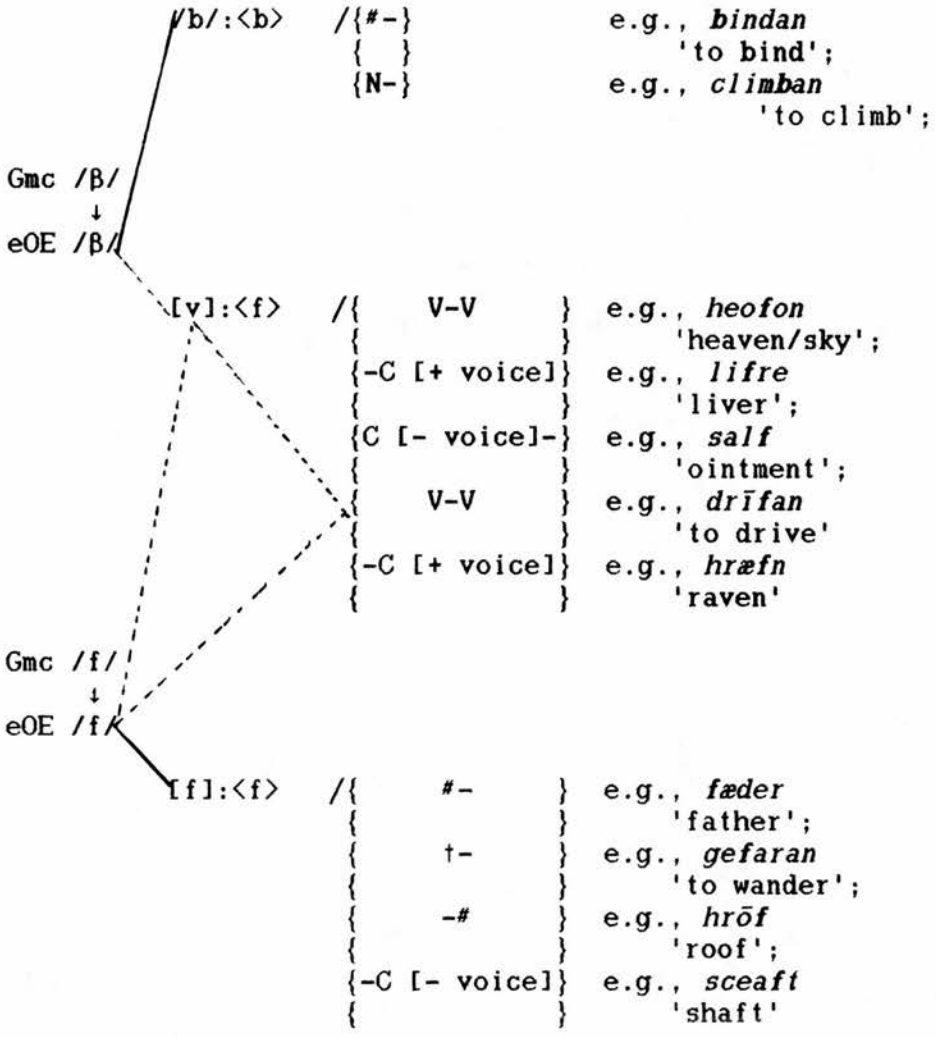
(24)

e.g.		Date	Text	Dialect
/V-V				
*gi**b**aen*	'given'	c. 725	*Épinal Glossary*[a]	Merc.
*he**b**en*	'heaven/sky'	c. 737	*Cædmon's Hymn*[a]	Nb.
/C [+ voice]-				
*sal**b***	'ointment'	c. 725	*Épinal Glossary*	Merc.
/-C [+ voice]				
*li**b**r*	'liver'	c. 725	*Épinal Glossary*	Merc.

[a] - cf. (23) above for manuscript details in each case.

This [β], not phonemically distinct from a labio-dental, merged with the new voiced allophone [v] of the early Old English voiceless labio-dental fricative /f/ (cf. Campbell 1959: §§57.1, 444; Hogg MS.:§§2.53-2.54) - the introduction for this reflex of the <f> graph and the gradual disuse of <b> suggest such a development (though cf. §3.2.2.1). Thus:

(25)



Hence the graph <b>, though confined to chronologically-early manuscripts and replaced in later manuscripts by <f>, was used in Old English to represent the bilabial reflex of eOE /β/. Moreover, as can be seen from Figure (25) above, <b> had two phonic referents: /b/ and [v], predominantly in the early Old English period, but also, interchanging with <f>, as late as the mid 9th century in Kentish charters, e.g., B.M. Cotton MS. Augustus II52 of c. 850. This charter has forms like <agiaban>, cf. WS <agiefan> 'to give', alongside <bebēode>, cf. WS <bebēode> 'I bid/command', i.e., in the Kentish manuscript, the first form cited has <b>:[v], cf. the usual West Saxon one where <f>:[v] and

for the second form, both Kentish and West Saxon have <b>:[b]. The graph <b>, though in use all through the Old English period, did not then have one fixed phonological signification. It cannot therefore be described and should not be used as a standard graph with a standard, unvarying signification (cf., for instance, Campbell's usage).

2.3.3.3 *<w>*

The use of the graph <w>, itself an editorial normalisation of the Old English graph <ƿ>, *wynn* taken over from the runic alphabet (cf. Campbell 1959: §50, fn. 1 and also §2.3.4.4 below), in reconstructed Old English spelling forms, like "OE **hwǣ*" (Campbell 1959: §125), is a further instance of the choice and use of a supposedly standard Old English graph which conflicts with Old English orthographic usage in manuscripts. Several factors combine to make this the case. Firstly, *wynn* (=Campbell's *w*) "is most infrequent" "in the earliest texts" (Hogg MS.: §2.77). In these, the voiced labio-velar approximant [w] was expressed instead by the graph(s) <u(u)>. So, e.g., <**u**erc> 'work', <gih**u**aes> 'each (gen sg)', both from *Cædmon's Hymn*, (cf. §§2.3.4.1 and 2.3.4.2 above) or <**uu**and**aeuu**iorpae> 'mole' (*Épinal Glossary*, cf. again the two sub-Sections just cited). Moreover, <u(u)> did not fall out of use; it is found still, alongside *wynn*, in the 9th century. Campbell (1959: §60) says that "after consonants *u* prevails longer than [word-]initially and after vowels ...." (but this does not explain the occurrences /V-, in e.g., <ge**uu**eorðiae> 'one should celebrate' or /#- as in <**uu**eorolde> 'world (acc sg)', beside the expected use /C- in e.g., <t**u**ælf> 'twelve' - all forms taken from a 9th century Kentish charter of King Oswulf: B.M. Cotton MS. Augustus II,79. <w> (for *wynn*) is not therefore a standardly-used Old English graph.

In addition, such a use of <w> (for *wynn*) is diatopically discrepant. <u(u)> and not <w> (for *wynn*) is the typical orthographic representation, throughout the Old English period of [w] in the Northumbrian dialect. Thus forms like <huelc> 'which' or <uulfes> 'wolves', with <u>:[w], appear in the 10th century *Lindisfarne Gospels* (cf. §2.3.4.1 above) - compare the early Northumbrian forms cited earlier. Finally, in using <w> (for *wynn*) as a representative Old English graph, based on a putative 'early' West Saxon orthographic standard, Campbell contradicts his chosen orthographic 'standard' because, even in 'early' West Saxon manuscripts, forms with <u>:[w] are "frequent" (cf. Campbell 1959: §60), e.g., <huæt> 'what', <cuōm> 'he/she/it came' or <cuēn> 'queen'. *Wynn* (= <w> in Campbell and most editions of Old English texts) and <u> are therefore co-existent graphs in 'early' West Saxon and in Old English (with the exception of Northumbrian) regardless of period, and neither can be designated the 'standard' Old English graph for representing [w].

2.3.4 *The Concepts of 'Standard' Old English and 'Standard' Old English Orthography*

2.3.4.1 Wrenn (1933: 83) explains why the concepts of a 'standard' Old English and a 'standard' Old English orthography are invariably founded upon West Saxon. He describes West Saxon as "the basic dialect for Old English considered *as a language* in the full sense of the term": for in this alone are there monuments enough for our consideration". While the second part of Wrenn's statement is laudable in its pragmatism (most of the Old English manuscripts which have survived are written in what is classified as a West Saxon dialect) this is not a sufficient reason for the tradition, upheld here by Wrenn, of elevating West Saxon to the status of a 'standard' Old English (certainly if he means by "*a language* in the full sense of the term" a complete linguistic system with an inventory of

identifiable phonological, morphological, syntactic and lexical features). The criterion for nominating a particular dialect to be a 'standard' just because we happen to have more manuscripts in that dialect than any other is unsound: it is to make a contingency out of modern-day necessity and takes no account of the vagaries of Old English dialectology, such as it can be reconstructed, during the Old English period (cf. below). *Dialect* is used here, and throughout, following Lehmann (1973: 255) in the sense of a 'subdivision .... [of a language] which is [largely] mutually intelligible with other such variants', i.e., a diverging linguistic variety with its own set of synchronic linguistic characteristics, rather than to mean 'a definable geographical area' or even 'a definable set of linguistic features associated/associable with a defined/definable geographical area or areas'. For Old English, there is a lack of evidence to support the latter definitions/usages - see the comments in, for instance, Campbell (1959: §§19 and 256) on the use of dialectal names "practically without claim to territorial significance", or Sisam's remarks (1953: 95) on the necessary "vagueness of our knowledge of [Old English] dialect geography", as well as the discussions of Old English dialects and dialectology in Hogg (1988) and Colman (1988b). All we can propose by way of a definition of an individual Old English 'dialect' is "a bundle of shared linguistic characteristics that differs from one or more other synchronic bundles of shared linguistic characteristics, even failing precise geographical location of these characteristics" (Colman 1988b: 112).

2.3.4.2 Moreover, there are three other Old English linguistic varieties (identifiable on the basis of what texts survive), each with its own deviations from the West Saxon system of linguistic features, but

exhibiting enough internal consistency to be broadly recognisable as Old English 'dialects'. Each was recorded in writing, indeed each had its own writing (and spelling) tradition - Campbell (1959) speaks of an "established" Anglian (i.e., Northumbrian and Mercian) "orthographical system" (§258); a Mercian one (§§290, 207); a Kentish "schriftsprache" or a "south-eastern koiné" (§21). The existence of these spelling traditions, alongside and differing from the West Saxon one/ones invalidates the notion of a standard Old English orthography. In addition, each of these non-West Saxon 'dialects' has a claim, equal to West Saxon, to consideration as a 'standard'. Each variety - associated with the Anglo-Saxon kingdoms/power-bases of Northumbria, Mercia and Kent respectively - had sociolinguistic prestige at various points in the political history of Anglo-Saxon England, depending on the timespan in question - Kentish in the late 6th and early 7th centuries, Northumbrian in the 7th and into the 8th centuries and Mercian in the 8th century (cf., for instance, Toon 1983 on Mercian, in conjunction with King, in press: §2.2). Furthermore, it is likely, if it is accepted that the dialectal diversity evidenced in Middle English, Early Modern English and Present-day English provides any kind of analogy for Old English and/or continuity with it, that there were more than these four 'dialects' of Old English, though unknown to us because no written records of them have survived. It is hard to imagine the co-existence, with the four major kingdoms (Northumbria, Mercia, Kent and Wessex) of minor kingdoms like the pre-9th century ones of the Hwicce, the Magonsæton, the Tomsæton or the Wreocensætan, or of *regiones* ('provinces') such as, e.g., the Middle Anglian ones peopled by the Gifle, the Hicce, the Cilternsætan and the South and North Gyrwa, without envisaging a concomitant linguistic

heterogeneity (at least in speech) for the Old English period. Though the detail of speech is not necessarily or normally represented in spelling, even, as is the case with Old English, for the earliest stages of the writing of a language (cf. Ch. 3 below and references therein, as well as King, in press: *passim*) and a written linguistic variety dubbed a 'standard' rarely, if at all, is representative of all linguistic varieties (whether regional, social or temporal) of the language for which it is deemed to be a written standard, it seems arbitrary, with regard to what is known of the Old English linguistic situation, to single out any one variety (especially one so ill-defined/definable as West Saxon, cf. below) - to call a 'standard' (cf. further below).

2.3.4.3 Following on from the last paragraph, the available evidence points to its being hard to fit West Saxon 'as we know it' into even Colman's very properly cautious definition of *dialect* in relation to Old English. This is because, as Campbell (1959: §17, 18) points out:

> Even in the manuscripts .... [which are our] main sources for Early West-Saxon, many spellings are found which reflect non-West-Saxon phonological forms .... .
>
> [W]hile [copies of the bulk of Old English verse] are predominantly late West-Saxon, they are extremely rich in [non-West-Saxon] dialectal forms of .... vocabulary, phonology and inflexion.

The findings of modern dialectology (cf., e.g., Francis 1983: Chs. 1, 2, 7 and 8; Romaine 1982(a): Chs. 1, 2, 3 and 9; Trudgill 1983: Chs. 1-3; Milroy 1987(a): Chs. 3, 4, 6 and 7 and Milroy 1987(b): Chs. 2, 4 and 5); those relating to the early stages of the standardisation of English (cf. Samuels 1963) and the historical circumstances surrounding the production of Old English texts (cf., e.g., Ch. 4 below and references therein; also King, in press: §§2.2, 2.3 and Hogg 1988: 193 - 198),

lead us not to expect that there would be total consistency within each "bundle of linguistic characteristics" in the recording of spelling, inflexions, etc., (cf. § 2.3.4.4 below).

We should not expect either that each "bundle" should necessarily be a "bundle" unto itself, completely separate from and independent of other "bundles". Nevertheless, it is disconcerting to find, with regard to a linguistic variety traditionally taken to be a 'standard', that texts allocated to it, i.e., to the West Saxon "bundle" exhibit internal inconsistency to such a degree, as well as an absence of the expected differences of these from non-West Saxon "synchronic bundles of shared linguistic characteristics". Not only are the linguistic features of the West Saxon 'dialect' so ill- definable synchronically ('early' or 'late'), it appears also that 'late' West Saxon did not develop from 'early' West Saxon:

> It is plain that the type of language found in the manuscripts accepted as eW-S differed considerably from that which contributed most to the formation of lW-S.
>
> Campbell (1959: §301)

2.3.4.4 The evidence presented at §§2.3.1 to 2.3.3 above supports to some extent Campbell's claims and shows that in reality these truisms of Old English studies: the concepts of a 'standard' West Saxon dialect and orthography, are nothing more than conventional fictions - albeit convenient ones for the purposes of lexicographers and novices to Old English (though, even using just linguistic criteria, rather than non-linguistic, or a combination of both, absolute homogeneity of spelling is not a prerequisite for 'standard' status - as the example of Middle Scots goes to show - cf. above and Devitt 1990; Agutter 1988 and 1990). The discussion in §§2.3.1 to 2.3.3 showed that the use of graphs from the

so-called standard ('early' or 'late') West Saxon orthography to represent reconstructed phones is, in practice, linguistically inappropriate and inadequate for Old English as a whole. The traditional concept of a 'standard' Old English orthography, based as it is upon one 'dialect' (West Saxon) at a chronologically-mid or late stage of its linguistic development (though cf. above, 'early' and 'late' West Saxon are not easily connected with each other) could not hope to, and does not, represent the Old English language as a whole. Indeed, any concept of a 'standard' Old English orthography, based upon one dialect - whether it be West Saxon or Northumbrian or Mercian or Kentish - could not be adequately representative of Old English whether viewed synchronically or diachronically.

2.3.4.5 It should also be borne in mind that the conditions for the determination of a standard linguistic variety and hence a standard orthographic system could not have been met in the Old English period. Leith (1983: 32, 38-57) describes the stages by which a standard written variety emerges. The first is (tacit) *selection* of a dominant variety. As we saw above, there were four such varieties (in order of chronological and socio-political dominance: Kentish, Northumbrian, Mercian and West Saxon) during the course of the Old English period. There seems to be no objective reason - now or then - for singling out any one of these above the others as the standard form. The second stage is (tacit) *acceptance* of the chosen standard "by the powerful and educated classes" (Leith 1983: 32). Again, no one of the four possible 'candidates' for standard status stands or stood out in this respect. Education was the province of the church and its personnel (cf. Chapter 4 below): they were not necessarily the holders of power in

Anglo-Saxon England. Further, even though a particular kingdom might at any given time be the most powerful in Anglo-Saxon England, this did not necessarily mean that the linguistic variety associated with the kingdom in question was used all over England as a standard - witness Kentish in the 8th century, even though Mercia exercised a hegemony over the kingdom of Kent and the other kingdoms (cf. King: in press). Stage three is the *elaboration* of the functions of the chosen standard. External historical conditions in Anglo-Saxon England were such that this stage was reachable only fitfully, i.e., by some or all of the four predominant dialects some of the time. The use of Old English in the domain of law did happen - but pre-10th century law codes, so far as we can tell, were recorded only in Kentish (those of Æthelbert, 602-603?, Hlothhere and Eadric (673-685?) and Wihtred (695), though all are preserved only in post-Conquest manuscripts) and West Saxon (those of Ine 688-694 - preserved in manuscript at the same time as those of Alfred 871-899) - cf. Whitelock 1955: 327-381, esp. pp. 327-333. There are no surviving contemporary Mercian or Northumbrian law codes. Royal charters, again relating to the 10th century and before, recorded wholly or partly in Old English, survive written in all of the main dialects, though only one Northumbrian one (of 685, a grant of land at Crayke, Yorkshire by Ecgfrith, King of Northumbria to Cuthbert). Other non-mainstream linguistic varieties are represented in royal charters too, those of the Rulers of the Hwicce (7th and 8th centuries), those of the Kings of Sussex (8th century) and of Essex (7th to early 8th centuries), for instance. See Sawyer (1968: *passim*, but esp. pp. 69-159). In the domain of religion, all four of the main dialects are represented at various times (cf., e.g., for Kentish, the *Kentish Psalm* of the 10th

century; for Northumbrian, the 10th-century *Glosses* to the *Lindisfarne Gospels* as well as various earlier works which straddle the domains of religion and literature, like the early 8th-century *Cædmon's Hymn*; for Mercian, the 9th-century *Mercian Hymns*; for West Saxon (again, a straddling case, this time religion and education), Ælfric's *Homilies* of the 10th century). Examples could also be cited for the domains of education and literature, though in the former category, Old English had to contend with Latin as the language of writing, especially in the pre-10th century period (cf. Ch. 4 below for most of the earliest instances). *Elaboration of function* did therefore occur, but for all four linguistic varieties, not just one, and for all four in varying directions, at an uneven pace and degree and at varying times. The final stage in the standardisation process is *codification*, i.e., attempting to fix the standard variety by recording its preferred forms, structures and content in grammars and dictionaries, the goal being to attain minimal variation in the written form (first-of-all) of the chosen standard. This is a stage not reached by any of the four linguistic varieties under consideration here. We have no contemporary grammars of any dialect of Old English. By this criterion then, none of the four dialects, or their written forms, emerges as a standard.

Not only does no one dialect emerge from the preceding discussion as a front-runner for the status of written/orthographic standard, but even if one were suitable according to Leith's criteria, the conditions leading to its dissemination were absent in Anglo-Saxon England. Neither of the two main factors contributing to the promulgation and use of a written standard were operational in the Old English period; *viz.* mass education leading to mass literacy and mass circulation of books, documents etc. in

printed form (i.e., in copies as near identical as possible). Education and literacy were confined to a small proportion of the population at any one time (cf. Ch. 4 below) and, although there was inter-monastery lending of books, etc., this hardly amounts to mass circulation - compare the situation in England between the late 15th and the mid 18th centuries when these conditions could be, and were, met, giving rise to our present-day written English standard, cf., e.g., Bourcier (1981: *passim*); Leith (1983: Ch. 2) and Scragg (1974: Chs. 4 and 5).

2.3.4.6 It may be that the applicability of some of the aforegoing discussion to the linguistic situation in Anglo-Saxon England is inappropriate. Scragg (1974: Ch. 1, esp. pp. 7-14) makes a fairly strong case in support of the widespead use of an orthographically-stable written form of West Saxon of the late 10th and early to mid 11th centuries. Scragg's case depends, however, on non-linguistic criteria and he does tend to underplay the rôle of the writing systems of Northumbrian, Mercian and Kentish prior to this and their continuation during at least part of this period. The only conclusion that can be drawn from the discussion above is that the existence and use of a standard, written Old English remain open to question and that a good deal more sophisticated, detailed and thorough research needs to be done on, for example, the entity 'late West Saxon'; how far, by whom and in what circumstances its written form was used; what is meant precisely by the concept 'standard' and its relevance to Old English and how far it is applicable to written Old English.

2.3.4.7 ***Abecedarianism Revisited and Reconstructed Spelling Forms***

In the light of the discussion and arguments presented in §2.3.4 above, and the concerns addressed in §§2.2.1, 2.2.2, 2.3.1, and 2.3.3.3, it can be

stated with good reason that, in theory and in practice, Old English spelling forms can be neither adequately reconstructed nor, if they have been reconstructed, can they be conclusively reconverted - the remainder of this sub-Section will be devoted to further supporting this claim. To return to Campbell's notation and approach to Old English phonological data (and by implication those in the same tradition), Campbell, for the most part, does not bother to designate his reconstructed spelling forms as Proto Germanic, Pre Old English, Old English, or whatever, but merely prefixes them with an asterisk. The putting-forward of a form like "**wēoh*" (Campbell 1959: §153) is, therefore, characteristic of his practice. This is obviously a spelling form - Campbell uses the vowel length macron found in written forms over the digraph *eo* and employs *h*: if this were a reconstructed phonological form, he would, according to his *Note on Symbols*, replace this with *χ* to signify [x] as he does in, e.g., §157 "*slæχαn*"[5]. Campbell does not stipulate the orthographic standard he is invoking in the reconstruction of "**wēoh*". The reader can only assume, since the graph *w* appears here and either ***wynn*** or ⟨u(u)⟩ were the graphs used in Old English (cf. §2.3.3.3) that the orthographic standard Campbell has used for his reconstruction, and therefore that to which the reader should refer in attempting to reconstruct the phones which Campbell has attempted to represent in this form, is Present-day English (Campbell's 'pronunciation guide' in his *Note on Symbols* may well prompt the reader to do this in any case). But, as with reconstructed spellings of categories (a), (b) and (c) at §2.3.1 above, the reader is still unable to gain access to the underlying phones posited by Campbell for this form because in Present-day English, the digraph ⟨eo⟩

has no fewer than nine qualitatively and/or quantitatively different phonic referents:

(26)

[i:əω]	as	exemplified	in	*leonine*;
[ɪə]	"	"	"	*theory*;
[ɔ:]	"	"	"	*georgette*;
[i:ə]	"	"	"	*neon*;
[ɪ'ɒ]	"	"	"	*geography*;
[i:'əω]	"	"	"	*deo͡dorant*;
[əω]	"	"	"	*yeoman*;
[i:]	"	"	"	*people*;
[e] / [ɛ]	"	"	"	*jeopardy*.

(cf. Jones/Gimson 1977: *passim*)

Even though this range of referents does not take into account Present-day English regional variants which could have been invoked, cf. Campbell's practice in his *Note on Symbols*, such as those of Scottish Standard English or Scots dialect for instance, it is sufficient to demonstrate the fluctuation and phonic indeterminacy likely to be encountered by any would-be reconvertor of this reconstructed spelling form, or others. Furthermore, despite the number and variety of possible referents given above, not one of them agrees with those thought to have been carried by ⟨ēo⟩ in Old English, *viz.*, [e(:)o] and those presented at §2.3.1.(c) above.

2.4 *Reconstruction, Dotted c, (Dotted g) and the Old English Reflexes of Pro Gmc /k/ (and /γ/)*

The discussion thus far of Campbell's notational devices has shown that, rather than elucidating points of difficulty in Old English spelling or throwing light on the relationship between Old English spelling and phonology, they add further ambiguities to those already present in written Old English and create blocks to gaining phonological information about it. Dotted *c* is no exception.

2.4.1 That Campbell should employ this notational device to supply a deficiency, or rather two deficiencies, is understandable. The first is built into Old English orthography itself: the graph <c>[6], alone or in collocation with another consonant graph (or graphs) represents more than one phonic referent in Old English manuscripts; on the second deficiency, see §2.4.3 and the Sections following below. By the time of the earliest manuscripts, the Pre Old English voiceless velar stop /k/, single or geminated, had developed two allophones: velar [k(k)] and palatalised [k'(k')], both represented by the graph(s) <c(c)> - as part of a process of palatalisation affecting velar consonants. The voiced fricative /ɣ/ and its stop allophone [g][7], as well as the voicless stop /k/, were affected by this change when they occurred in the neighbourhood of a front vowel or a following palatal /j/ (← Pro Gmc /j/); on palatalisation, see, e.g., Campbell (1959: §§426-429); Hogg (1979); Penzl (1947) and references therein. Palatalisation is thought to have taken place after the operation of the Pre Old English sound changes First Fronting, Breaking and Retraction and Restoration of [ɑ] but before *i*-umlaut had occurred (names are as per Campbell; see again Hogg 1979 in conjunction with Colman 1986; Campbell 1959: §427; Penzl 1947, esp. §§3 and 5). Evidence for this chronological ordering comes from the retention by the word-initial reflex of Pre OE /k/ of its velar quality when a secondary front vowel, one derived as a result of *i*-umlaut, followed (at least until the new secondary front vowels [ø(:)] and [y(:)] were unrounded), but its becoming palatalised before a primary front vowel, i.e., a Pre Old English front vowel or diphthong with front first element derived either direct from Proto Germanic or developed as a result of First Fronting and/or Breaking. So, e.g., OE *cyning* 'king'

and *cennan* 'to conceive/create' would have retained Pre OE [k] /#-^{2}V [+ front] (at least at the stage just after phonemicisation of the output of *i*-umlaut by loss of the umlauting context) because the stressed vowels in each of these word forms developed, via *i*-umlaut thus:

(27)

cyning - ⟨y⟩:[y] ← Pre OE/Pro Gmc [u] by I.U. /-$[i], cf. OS, OHG ***kuning***; Go ***kuni--***;

cennan - ⟨e⟩:[e] ← Pre OE/Pro Gmc [a]/-N, by I.U. /-$[j], cf. Go, OHG ***kannjan***.

OE *cēosan* 'to choose' and WS *ceald* 'cold' would, by contrast, have developed pre OE palatalised [k'] /#-^{1}V$_{i}$V$_{j}$ where V$_{i}$ was [+ front], because the stressed vowel segments in each word are primary, and not the output of *i*-umlaut, *viz.*:

(28)

cēosan - ⟨ēo⟩:[e:o] ← Pre OE/Pro Gmc [iu], cf. Go ***kiusan***;

ceald - ⟨ea⟩:[æɑ] ← Pre OE [æ] ← Pre OE/Pro Gmc [a]

Breaking /-[l]+C[d] cf. Go ***kalds***

First Fronting

In certain phonological contexts (detailed below), these palatalised consonants [k'] and [g'], single or geminated, were affricated. This is suggested by a few innovative spellings for the reflexes of these segments, such as ⟨c⟩ and ⟨tc⟩ for ⟨t$_{ʒ}$⟩, e.g., *orceard* and *cræftca* for more usual *ort$_{ʒ}$eard* 'orchard' and *cræft$_{ʒ}$a* 'workman', or ⟨c$_{ʒ}$⟩ for ⟨d$_{ʒ}$⟩, e.g., *mic$_{ʒ}$ern*, rather than *mid$_{ʒ}$ern* 'fat' (for others, consult e.g., Campbell 1959: §§434, 486; Penzl 1947: §§1.6, 1.7). The affricates possibly developed thus:

(29)

[k']	→ [k͡j]	→	[t͡j]	→ [t͡ʃ] :<c>
[k'k']	→ [k͡jk͡j]	→	[t͡jt͡j]	→ [t͡ʃt͡ʃ]ˢ:<cc>
[g']	→ [g͡j]	→	[d͡j]	→ [d͡ʒ] :<ʒ,cʒ>
[g'g']	→ [g͡jg͡j]	→	[d͡jd͡j]	→ [d͡ʒd͡ʒ]ˢ:<cʒ>.

Parallel to these leniting developments was the spirantisation to a palato-alveolar fricative of the palatalised consonant cluster [sk'], thus: [sk'] → [ʃ]:<sc>. It is difficult to date the operation and completion of these changes, traditionally called 'assibilation'. Kuhn (1970: 24) places them "about the middle of the seventh century"; Hogg (MS.: §§2.64, 2.65) says that the affrication of [k'] and [g'] "was gradual and probably had not been completed by the time of the earliest texts", while the spirantisation of [sk'] → [ʃ] "must have arisen shortly after [the time of the earliest texts]". If these opinions on dating are considered together with the date of appearance of the innovative spellings cited earlier (from about the later 9th century onwards, according to Campbell 1959: §486), it seems reasonable to assume that assibilation took place some time after the operation of *i*-umlaut (palatalisation of the consonants affected being a first stage in the development) and was completed some time in, or by, the 9th century. On phonemicisation, see Footnote 9.

2.4.2 In the main, these new additional palatalised and, in some cases, lenited reflexes of pre OE /k(k)/, [g(g)/ and /sk/ continued to be represented in Old English orthography by the same graphic devices in use to represent the non-palatalised and non-lenited phones (though palatal diacritics were occasionally used in West Saxon and some Northumbrian texts, e.g., <cēace> 'jaw', <scieran> 'to cut', <giet> 'yet', <secean> 'to seek' or <drencium> 'drinks (Dat Plu)' - cf. Campbell 1959: §45; Penzl 1947: §§1.4, 1.7, 3.3; Hogg MS.: §2.80; and §2.3.1 above).

As a result, the graph <c>, alone or combined with other consonant graphs, occurs in the manuscripts after the occurrence of these changes to represent the following phonic referents:

(30)

<u><c> has three phonic referents</u> -

(a) [k] (voiceless velar stop) - after palatalisation:

/#-	{ V [+ back] }	e.g.	*cuman*	'to come';
	{ ^{2}V [+ front] }^{10}	e.g.	*cēne*	'keen';
	{ C }	e.g.	*cnēow*	'knee'.
/	{V - V [+ back] }	e.g.	*wicu*	'week';
	{V [+ back] - V]}	e.g.	*āces*	'of a/the oak';
	{ V - $ [iαn] }	e.g.	*līcian*^{10}	'to please'.
/	{ V [+ back] -# }	e.g.	*bōc*	'book';
	{V_iV_j [+ back]-#}	e.g.	*ēac*	'also/besides'.

(b) [k'] (voiceless palatalised stop) - after palatalisation, but before assibilation:

/#-	{ ^{1}V [+ front] }	e.g.	*cirice*	'church';
	{$^{1}V_i$ [+ front] V_j}	e.g.	*ceorl*	'churl'.
/^{1}V [+ front] -	{ V [+ front] }	e.g.	*blæces*^{12}	'black (Gen Sg Masc)'
			or	
			rīce	'powerful';
	L	e.g.	*æc(e)r*^{12}	'field' (cp. Go *akrs*)
	N	e.g.	*frēcne*^{12}	'terrible'.
/^{2}V [+ front]^{10} -{ V }		e.g.	*sēcan*	'to seek';
/^{2}V [+ front]^{10}	{+ L - }	e.g.	*birce*	'birch';
	{+ N - }	e.g.	*drencan*	'to cause to drink';
	{+ C-C#}	e.g.	*wyrcþ*^{12}	'he/she/it works'.
/^{1}V [+ front]-#		e.g.	*bæc*^{12}	'back';
		or	*dīc*	'ditch'.
/^{2}V [+ front]{ -# }		e.g.	*bēc*^{12}	'books';
{ + L -#}		e.g.	*swelc*	'such';
{ + N -#}		e.g.	*benc*	'bench'.

(c) [t͡ʃ] (voiceless palato-alveolar affricate) - after assibilation of [k']:

/#-	{ ^{1}V [+ front] }	again e.g.	*cirice;*
	{^{1}V$_{i}$ [+ front]V$_{j}$}	again e.g.	*ceorl.*
/	{ [i(:)] - V }	again e.g.	*rīce.*
/^{2}V [+ front]^{10}	{ - V }	again e.g.	*sēcan*
	{+ L - }	again e.g.	*birce;*
	{+ N - }	again e.g.	*drencan*
	{+ C-C#}	again e.g.	*wyrcþ.*
/[i(:)]-#		again e.g.	*dīc;*
/^{2}V [+ front]^{10}	{ -# }	again e.g.	*bēc;*
	{+ L -#}	again e.g.	*swelc;*
	{+ N -#}	again e.g.	*benc;.*

(31)

<u>\<sc\> has three phonic referents</u> -

(a) [sk] (consonant cluster of voiceless alveolar fricative + voiceless velar stop) - after both palatalisation and assibilation had occurred:

/	{V - V [+ back] }	e.g.	*ascaþ*	'he/she/it asks';
	{ V [+ back]-# }	e.g.	*tusc*	'tooth/tusk'.

(b) [sk'] (consonant cluster of voiceless alveolar fricative + voiceless palatalised stop) - after palatalisation, before assibilation <u>and</u>

(c) [ʃ] (voiceless palato-alveolar fricative) - after affrication of [sk']:

/#-	{ V }	e.g.	*scanca*	'shank/shin/leg';
	{ }	or	*scip*	'ship';
	{ C }	e.g.	*scrincan*	'to shrink'.
/V - V [+ front]		e.g.	*asce*	'ashes';
		or	*fisces*	'of a/the fish'.
/^{2}V [+ front]-(#)^{10}		e.g.	*biscop*	'bishop';
		or	*wyscan*	'to wish'.

(32)

<u>⟨cc⟩ represents three phones</u> -

(a) [kk] (geminate voiceless velar stop) - after palatalisation and assibilation):

/V [+ back]} - { V } e.g. *bucca* 'buck';
[+ short]} { } or *brocces* 'of a/the
{ } badger';
{ # } e.g. *brocc* 'badger'.

(b) [k'k'] (geminate voiceless palatalised velar stop) - after palatalisation, but before assibilation:

/²V [+ front]} - ¹⁰{V [+ front]} e.g.
[+ short]} { } *wæccе*¹² 'wakefulness';
{ V } e.g.
{ } *streccan* 'to stretch';
{ -# } e.g.
{ } *crycc* 'crutch'.

(c) [t͡ʃt͡ʃ] (geminate voiceless palato-alveolar affricate) - after assibilation of [k'k']:

/{ [i] } - V e.g. *wicce* 'witch';
{ } or *wiccung* 'witchcraft';
{²V [+ front]}¹⁰ e.g. *streccan* 'to stretch'.

/V [+ front]} -# e.g. *þæcc* 'thatch';
[+ short]} or *crycc*.

(33)

<u>⟨c₃⟩¹² represents three phones</u> -

(a) [gg]¹³ (geminate voiced velar stop) - after palatalisation and assibilation had occurred:

/{ V [+ back] } - V e.g. *doc₃a* 'dog';
{ [+ short] }
{$V_i V_j$ [+ short]} e.g. *sceac₃a* 'hair'.

(b) [g'g']¹⁴ (geminate voiced palatalised velar stop) - after palatalisation, but before assibilation
<u>and</u>

(c) [d͡ʒd͡ʒ] (geminate voiced palato-alveolar affricate) - after assibilation:

/²V [+ front]⁹ - {V} e.g. *sec₃an* 'to say';
{#} e.g. *ec₃* 'edge';
or *bryc₃* 'bridge'.

2.4.3 The possibilities for ambiguity of reference arising from the multiple phonological significations of Old English ⟨c(c)⟩, ⟨sc⟩ and ⟨c₃⟩

are evident (cf. §§2.4.3.2 & 2.4.3.3 too for implications with regard to the phonological status of the segments). But Campbell's attempts to make up for this deficiency in Old English orthography only involve him, as suggested at the beginning of §2.4.1, in a second. He proposes the following solution to the problem:

> In this book a dot is printed over palatal *ċ* .... which entirely removes ambiguity in the case of *c* and *ċ* ....
> (Campbell 1959: §50.4, fn. 2)

Unfortunately, this is not the case because the user of the *Old English Grammar* cannot tell whether Campbell's *ċ* is an orthographic or a phonological symbol - instances of both usages occur throughout his work as will now be illustrated.

2.4.3.1 Thus we find the *ċ* symbol in citations of Old English forms like *"árliċe"* (§26) and *"fisċ"* (§35), etc.. Campbell gives these forms in his section on *Writing, Orthography and Pronunciation.* In them, *ċ* is used as an orthographic one. One implication of the statements he makes to accompany such forms and of the use of *ċ* in citing Old English forms purportedly as found in Old English manuscripts is that the symbol *ċ* was used in manuscripts by scribes of Old English. The only dotted symbol to appear in Old English manuscripts is, however, a dotted *y* (i.e., *ẏ*). To imply otherwise is misleading with regard to Old English orthographic and palaeographic usage.

2.4.3.2 *ċ* as a phonological symbol appears in statements of Campbell's like "*ċ* and *ċċ* > [tʃ]" (§431). Aside from the ambiguity necessarily caused by these fluctuating, contradictory significations of *ċ* is added phonological ambiguity created by Campbell's using *ċ* as a phonological exponent of some kind. As will be seen from the items cited below at

(34) and (35), given as they appear in Campbell's *Grammar*, Campbell does, as he promises in §50.4, fn. 2, mark "palatal *ċ*" with a dot - the following are only two sets of the phonological variants represented by Old English <c>, but they will suffice to show the ambiguity which arises from the use of this diacritical device:

(34)

blæċes	/^{2}V [+ front] - V [+ front]
(§429)	
æċ(e)r	/^{2}V [+ front] - L
(§§429, 363)	
frēċne	/^{2}V [+ front] - N
(§364)	
bæċ	/^{1}V [+ front] -#
(§428)	

(cf. (30b) above)

(35)

ċiriċe	/#-V [+ front] also /V [+ front] -
(§§427, 432)	
ċeorl	/#-V_i[+ front]V_j
(§§427, 432)	
rīċe	/[i:] - V
(§429)	
sēċan	/^{2}V [+ front] - V
(§§429, 433)	
birċe	/^{2}V [+ front] + L -
(§§429, 433)	
drenċan	/^{2}V [+ front] + N -
(§429)	
dīċ	/[i:] -#
(§§428, 433)	
bēċ	/^{2}V [+ front] -#
§428)	
swelċ	/^{2}V [+ front] + L -#
(§§428, 433)	
benċ	/^{2}V [+ front] + N -#
(§§428, 433)	

It can be seen from these examples that Campbell does indeed place a dot over "palatal *ċ*", but he employs it for all occurrences of Old English <c> where it signifies any kind of palatal reflex of Pro Gmc /k/ - in the first set (Figure (34)), [k'], in the second (Figure (35)), [tʃ] (cf. Campbell 1959: 173, fn. 1). This unvarying and indiscriminate use of

ċ generates phonological ambiguity because it takes no account of the chronology of the palatalising and assibilating developments which affected Pro Gmc /k/ in Pre Old English, or of how these relate to the dates of the manuscripts from which examples are, presumably, drawn. Thus, when forms affected by both changes, like *ċiriċe* or *dīċ* are cited outwith his section *Fronting and Assibilation* (pp. 173-179), the reader of his *Grammar* cannot tell whether *ċ* is intended to represent [k'] or [tʃ]. This difficulty is exacerbated slightly by the unavoidable need to cite forms in isolation rather than as exemplificatory forms interpretable within the context of a datable text. This need does not, however, excuse Campbell's usage. On the contrary, it calls for as much accuracy and consistency as possible.

Campbell's practice does not allow either for the co-existence, after assibilation, of different "palatal" reflexes of Pre OE /k/. These seem to have been realised according to phonological context, so <c> in e.g., *bæces, æcer, frēcne* and *bæc* can only represent palatalised [k'] because lenition to [tʃ] did not take place unless the stressed vowel preceding [k'] was either [iː] or a ^{2}V [+ front][11]. The placing of a dot over *c* in these forms does nothing to aid phonological interpretation of Old English <c>. Because Campbell's *ċ* can represent either [k'] or [tʃ], the reader can only discover its phonic referent by working it out from the phonological context. This is <u>exactly</u> what he would have had to do had no superscript dot been added to the *c*. Campbell's practice therefore represents no advance on the original Old English orthography. Indeed, in the case of the digraph <cg>, Campbell's diacritic dots actually create ambiguity. On a parallel with *ċ*, he indicates "palatal" phonic referents of <g> also with the superscript dot (see again his

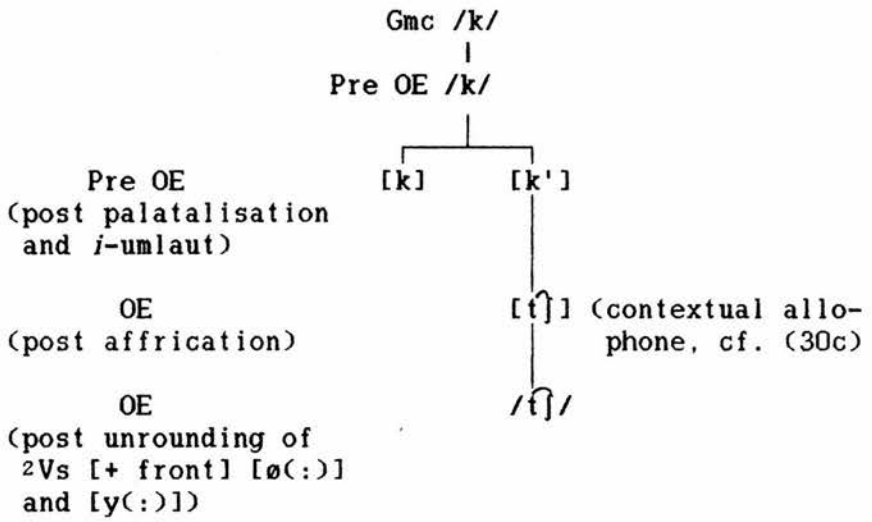
§50.4, fn. 2); hence, in the case of this digraph, he produces the italicised sequence *ċġ*. Because Campbell does not take chronology into consideration, the reader, in trying to interpret *ċġ*, is faced with a bewildering variety of possible phonic significations (cf. Campbell 1959: §§486, 51 and 64) *viz.*:

(36)

$$\left[\begin{array}{cccc} \{ & \{k'\} & \{g'\} & \} \\ \{ & \{t\int\} & \{j\ \} & \} \\ \{ & & \{d\widehat{3}\} & \} \\ \{ & di & & \} \\ \{ & d\widehat{3} & & \} \end{array}\right]$$

2.4.3.3 Campbell's diacritic dotting of *c* makes for phonological confusion of one more kind. His usage is motivated, as noted earlier, by a phonological classification of [k'] and [tʃ] together as "palatal" (a phonetic classification would require [k'] to be described as *palatalised*, and [tʃ] as *palato-alveolar*). This is clear if we look at his usage in the light of the development of Gmc /k/ in Old English and the phonic status of its reflexes; the contexts in which these appear are listed above at Figure (30), together with examples:

(37)



We find Campbell's *ċ* indicating the two allophones palatalised [k'] and affricated [t͡ʃ]. As the evidence of complementary distribution provided by minimal pairs like *cinn* 'chin' (where <c>:[t͡ʃ]) and *cinn* 'race/kind' (where <c>:[k]) shows, by about the mid to late Old English period[9], the allophone [t͡ʃ] had become a phoneme, thus /k/ ≠ /t͡ʃ/. Campbell's usage however takes no account of this change in phonemic status and so the ambiguity created by his phonological classification but 'allophonic' practice is compounded by his marking the <c> graph representing the phoneme /t͡ʃ/ with an 'allophonic' dot.

The phonological association of the phone [k'] with [t͡ʃ], evidenced in the use of the same symbol *ċ* to represent both segments, also obscures the true phonological identity of [k']. [k'] was an allophone of the velar phoneme /k/ (its appearance is predictable from phonetic context - cf. (30b) above and Footnote 10). But this relationship is misrepresented by Campbell's using two different symbols for these most closely-related segments; so /k/ is signified by *c*, while its allophone [k'] is graphically dissociated from it by the addition of the diacritical dot - *ċ* - and associated with another distinct phoneme, *viz.* /t͡ʃ/, also represented by *ċ*.

A case could, perhaps, be made for retaining in the citation of Old English forms a diacritic dot over *c* when it represents a postulated /t͡ʃ/, given that, depending upon chronology, Old English <c> could represent [k'] or /t͡ʃ/ in exactly the same words - compare the word forms in Figure (30b) with those in (30c). Such a device would however be useful and justifiable only in elementary grammars or readers for beginners in Old English - and only then if it is made clear that the device is editorial and does not derive from the usage of scribes of Old

English. It has no place, surely, in a standard, advanced reference book such as Campbell's which, ideally, should present spelling and phonological information consistently and unambiguously within a clearly-stated chronology of the Old English phonological developments (insofar as these can be reconstructed). Dotting of *c* serves no useful purpose in the citing of spelling forms of nominal, verbal, adjectival, etc., paradigms, whose function is to provide morphological information about Old English.

CHAPTER 3:
ACCOUNTS AND BALANCES

3.1 *SETTLING ACCOUNTS*

The discussion in the previous chapter focussed on notational ambiguities arising from traditional methods of putting forward information on Old English phonology, in particular as exemplified in Campbell's 1959 *Old English Grammar* in which italics and makeweight notational devices like spelling-cum-phonological symbols or diacritic dots are used. Obviously, ambiguities encountered in trying to phonologically interpret Old English spelling - of the kind embodied in e.g., the consonant graphs ⟨c(c)⟩, ⟨sc⟩ and ⟨c_3⟩ - require some kind of key. Equally obviously Campbell's notational devices do not provide this and do not, therefore, in any way make up the deficiencies in Old English manuscript orthography. Those of the consonant graphs just cited could, for instance, be supplied simply in the form of a clear statement of the phonological contexts in which the various phonic referents of the graphs are found, accompanied by a relative chronology - as presented at §§2.4 ff. above. Such a statement should be perfectly adequate (though see again the last paragraph of §2.4.3.3) given that an interpreter of Old English spelling data must ultimately have recourse to these contexts for phonological information. This statement should be made clear by the use of precise and appropriate notation(s), such as that detailed in the ***Preface*** to the present work, thus making plain whether spelling, or phonology, or palaeography is being discussed. Such notation should be consistently employed[5] wherever necessary. In this way, the incompatabilities which arise between italics (or bold-face type as used

by e.g., Wright and Wright 1925) or confusing diacritical symbols or dots, and the demands of explicating Old English spelling and phonology would be resolved. Notation thus used in the discussion of Old English data would meet, as Campbell's and other traditional scholars' devices fail to, any difficulties of Old English spelling usage. The ambiguities (more numerous and various than actually exist in the Old English) generated by such devices would, at the same time, be entirely avoided.

3.1.1 A final matter for resolution is reconstructed spelling forms prefixed with an asterisk. As illustrated in the preceding Chapter, the use of such forms has the effect of distancing the interpreter of them, and preventing him from recovering, the phonological information the presenter of such forms initially sought to impart. Indeed the presenter - in the present instance, Campbell - cannot avoid imparting phonological information. This is the case because, to reconstruct the individual graphs of a spelling form he must first posit individual phones before he can choose and present what he regards as suitable written referents, i.e., target symbols into which to convert these phones. To gain phonological information from the reconstructed graphs, the interpreter must reconvert the target symbols into the originally-postulated phones if, in fact, this is possible - cf. §2.2.1 which showed that hypothetical spelling forms designated "Pr.OE." or "Gmc." could not be reconstructed or reconverted because no spelling systems are extant for these pre-literary stages of the Old English language, or cf. §2.3.4.7 where the possibly unhappy results of increasing the element of hypothesis by offering undesignated spelling reconstruction as source-data for Old English phonology were put forward; and cf. §2.3.1 (c) in which the impossibility, or extreme difficulty, of reconverting hypothetical "O.E."

spelling forms, as a consequence of heterogeneous Old English spelling and phonological correlations, were discussed.

Indeed this latter category of forms illustrates particularly well the greatest obstacle facing a would-be reconstructor of spelling forms , or a transliterator - cf. Wellisch (1978) (and King 1986: I.C., where information, terminology and elaboration of the present argument, relating especially to the problems of rune transliteration will be found). This obstacle is the absence of an adequate and consistent one graph:one phone spelling system for use as a target alphabet. This results in many infelicities in the matching of the source reconstructed phone with a target phone in relation to Old English and with regard to the interpretation of Old English spelling data. If, for instance, the target alphabet chosen is the alphabet as used in Old English, problems of diachronic and regional variability and irregularity arise. This was exemplified in §§2.3.3.1 - 2.3.3.3 and §2.3.1 (c) where it was demonstrated that the same graph(s), depending upon historical phonological developments, can represent different diachronic phonic referents, e.g., <b>; the use of a graph can be subject to diachronic and regional, though not necessarily phonological, considerations, e.g., <þ> and <ƿ> (= *wynn*) or the same graph(s) can synchronically represent several different phones, of arguably-different phonological status, or even have no phonic reference. The use of a graph or graphs can also be subject to diatopic considerations, e.g. cf. §2.3 ff. above. Conversely, the source phone can have many representations in spelling according to chronology and divergent dialectal linguistic developments, again e.g., <ea>.

If the target alphabet chosen is the Roman-letter alphabet as used in Present-day English, diachronic difficulties are encountered, *viz.* the same graph(s) can appear in Old English and Present-day English, but may have divergent phonic referents, e.g., <d>:

(38)
PE and OE <d>: voiced dental/alveolar stop /d/ -

/-{#- }	as in PE <**day**>	cf. OE <**dæg**>;
{V-V}	as in PE <**r**i**d**er>	cf. OE <r**ī**d**e**nd>;
{-# }	as in PE <**t**i**d**e>	cf. OE <**t**ī**d**> 'hour'.

but compare:

OE <d>: voiceless and voiced dental fricatives [θ] and [ð]
(cf. (16) and (23) above).

As the example "**wēoh*" showed (cf. (26) above) a graph or graphs, in this instance <eo>, which appear in Old English and also later, in Present-day English, may have no shared phonic referent and, moreover, a plurality of phonic referents.

Considerations like these corroborate and confirm the reservations expressed earlier about the wisdom generally of presenting, as a source of phonological information about Old English, reconstructed spelling forms. The resulting data are extremely, and unnecessarily complex: they are in effect double reconstructions - a surface (often unsuitable as we have seen) spelling reconstruction of an underlying phonological reconstruction. Since all starred forms are merely not attested in writing, irrespective of whether or not a spelling system existed and was in use at the time in question, and, since all of these forms are, of necessity, based on phonological reconstructions, it is surely much more logical and effectual, from the point of view of both presenter and interpreter, simply to present these phonological reconstructions (word-forms or individual segments) using appropriate phonemic or phonetic

brackets and I.P.A. symbols. This is the form of presentation adopted throughout the present work except, of course, when citing forms from other works when the authors' own usage is retained. In addition, because such phonological forms, like all presentations of Old English data - regardless or whether or not these are based on the interpretation of attested written forms - would be hypothetical (we have no tape recordings of Old English or Germanic speakers) there is no point in affixing an asterisk to these forms, as e.g. Hogg (MS.:§§5.65 - 5.67 and *passim*) does. Unattested, reconstructed phonological forms are therefore presented without an asterisk in this study (subject to the proviso made just above) - labels such as *Pro Gmc, (Pre)OE, WS*, etc. prefixed to them will provide adequate linguistic and chronological identification. Since the proposed presentation of reconstructed forms involves use of I.P.A. symbols, the problem of an adequate target alphabet is resolvable because (cf. King 1986: 54):

> i. the I.P.A. can provide an ample number of symbols for use as a target [alphabet];
>
> ii. the letters of the I.P.A. are standard and unvarying in their form and signification. This allows them to be independent of historical developments [such as those outlined briefly above affecting the alphabet as used in Present-day English];
>
> iii. .... the I.P.A. is flexible enough to accommodate [synchronic and diachronic dialectal] variants .... .

The benefits accrued from such precision of phonological statement for both presenter and interpreter of reconstructed forms are obvious: for both, fidelity to the facts of Old English phonology (insofar as these can be ascertained); the interpreter's task is facilitated because the Old English phonological evidence is made accessible in a direct, lucid form

which is easily assessable; the presenter has available a means of putting forward his evidence, or his interpretation of it, which is theoretically and in practice sound and which is capable of expressing exactly what he wants to express without ambiguity (use of the I.P.A. as a means of expression of course also demands optimum accuracy in the preparation of the data to be presented).

3.2 *TRADITIONAL ACCOUNTS OF OLD ENGLISH SPELLING*

It was presupposed earlier, at the beginning of Chapter 2, that Campbell's notational usage is representative. Available evidence shows this presupposition to have been justified. Campbell's usage continues a tradition stretching back to Sweet (1888) who uses italics, dotted *c* and *g* and reconstructed, starred spelling forms, e.g., §471 "**ċeali, *ċælī*"; Sievers (1899), who substitutes boldface type for italics and uses starred reconstructions, e.g., in §117: "**drý**, *'magician'*, from ***drýe***" and Luick (1921) who employs all three devices, exemplified conveniently in §637 where he introduces his use of superscript dots on *c* and *g*: "**ċǣsi* (> *ċeǣsī*) > *ċī̄ese*, 'käse'". Since Campbell has been accorded "pre-eminence" "with respect to Old English linguistic studies" (Hogg 1988: 184), it is not surprising to find that the notational practices for the presentation and discussion of Old English data followed in his 1959 *Old English Grammar* are widely observed in other, later grammatical works. Mitchell and Robinson (1986), for instance, use all three devices (though, cf. their §9, they employ *ċ* to represent only /t͡ʃ/), thus, the form "**ċierfan*" appears in the Note to §100. Though Hogg (MS.) in many ways improves upon the notation found in Campbell (1959), he still retains starred spelling reconstructions and dotted *ċ* and *ġ*. He reserves

the former for /t͡ʃ/, e.g. "**sċēp*", "**sċīēp*" (§5.54), and *sċ* for /ʃ/, but the latter (*ġ*) has to represent three segments: /d͡ʒ/, /j/ and /i/.

In the light of the expectation that the notation chosen and used by a writer on Old English will be a product of the assumptions, principles and procedures governing his interpretation of Old English spelling, the evidence put forward in this Chapter and the preceding one should enable us to discover the principles which inform Campbell's interpretation of Old English spelling data; and, since his approach and practice are typical and widely copied, to extrapolate from these principles those which, traditionally and still, frequently appear to guide the interpretation of Old English spelling. This evidence shows Campbell, Sweet, Mitchell and Robinson, *et al* using italics simultaneously for both phonic and spelling units, i.e., equating spelling with phonology. It shows the preference of these writers for reconstructed spelling forms over phonological ones and it shows them using modified graphs, altered in forms and/or function (*ċ, ġ, þ*, etc.) rather than I.P.A. symbols and phonological notation. The decided bias, revealed by this usage, in favour of spelling on the part of these writers on Old English argues strongly that spelling is generally interpreted at its face value, i.e., according to a principle that Old English spelling consistently and faithfully represents Old English phonology. Correlative with this principle is a second which believes and claims that the Old English spelling system(s) perfectly expressed and matched the Old English sound system(s), i.e., that in Old English, there was a one-to-one graph:phone relationship, or that Old English spelling was broad phonetic.

3.2.1 As the bases of approach to the interpretation of Old English spelling data, principles like these are flawed and therefore questionable. The first results in a simplistic and over-literal interpretation which does not agree with the Old English linguistic evidence, as we have already seen at §2.3.1 (c). There, leaving aside, for present purposes, the complex detail of diachronic and dialectal variation presented there, the digraph <ea> was shown to have four different kinds of signification, *viz.*:

(39)

1. *a diphthong*, made up of two tautosyllabic vocalic units, e.g., [æ:ɑ̯] as in *hēafod* 'head';

2. *a disyllabic vocalic sequence in hiatus*, with an intervening morpheme boundary, e.g., [e:] + [ɑ] or [ɒ] as in Nb *sēa* 'to see';

3. *an unstressed, syllabic monophthong* [ɑ] represented by <a>, *plus* <e> functioning as *a diacritic* to mark a preceding consonant as palatal (either palatalised or lenited), e.g., *sēcean* 'to seek'; (in addition to what was said at §2.3.1 (c) should be added the consideration that it would be linguistically improbable to posit for OE the development of a diphthong in an unstressed syllable);

4. *a stressed, syllabic monophthong* [æ:] spelt <a>, *preceded by a palatal diacritic* <e> functioning as above, e.g., *geār* 'year'.

Sievers (1899), Campbell (1959) and Hogg (MS.), for instance, approaching the interpretation of <ea> from the point of view of this first principle posit linguistically improbably significations for 2. and 4. above. For 2., all three assume a diphthong - Sievers (§166.2, cf. §§35, 36) gives "**ēa**" to indicate [æ:ɑ], on analogy with the use of <ea> to represent the Old English reflex of Gmc [au]; Campbell (§§234, 238.2; 46) suggests a diphthong [eɑ] and Hogg (§§5.41; 5.44(2) also interprets <ea> in this word form as representing a diphthong with a "[- high]"

first element and a second non-syllabic element "[α̯]" which was "gradually .... reduced to some kind of centralised vowel" (unspecified), i.e., to begin with, [e:α̯] or [æ:α̯]. For 4., all three again suggest a diphthong, thus, Sievers (§75; cf. §§35, 36) - "ēa" again = [æ:α]; Campbell (§185) - [æ:α] and Hogg (§§2.35; 5.49, 5.50) - [ɛ:α̯]. Objections to diphthongal interpretations in both cases have been put forward already (cf. §2.3.1 (c) again). The implications of such construings for approaches to the interpretation of Old English spelling will be considered more fully towards the end of this Chapter, together with those arising from the discussion which now follows.

3.2.1.1 Both Campbell (1959: §§43;, 266;, 269) and Hogg (MS.:§§2.38 - 2.40) state that word-final spellings of front vowel graphs ⟨e⟩ or ⟨æ⟩ plus ⟨i⟩, rather than the expected ⟨-eg⟩, ⟨-æg⟩ respectively, e.g., ⟨**wei**⟩ for expected ⟨**weg**⟩ 'way', ⟨grei⟩ for ⟨grǣ**g**⟩ 'grey' or ⟨**dei**⟩ for ⟨d**æg**⟩ 'day', represent two new diphthongs [e(:)i̯] and [æ(:)i̯] in Old English formed by a process of 'vocalisation' of /j/ when word-final and tautosyllabic with the preceding front vowel. Colman (1983a) examines the phonological and related structural processes of 'vocalisation' of Old English /j/ and /w/ - only /j/ will be discussed here. In this paper (p. 33), she defines *vocalisation*, on the basis of a phone being categorised as vocalic by virtue of its inclusion in the nucleus of a syllable, as "movement of a consonantal allophone [in this case [i̯] of #-/j/] from without the nucleus to within the nucleus of the syllable". The only circumstance which would allow this allophone [i̯] of the approximant /j/ (phonetically similar to the phone /i/), when word-final, to move into the nucleus and become, by having thus been vocalised, a nuclear non-syllabic is the previous existence in the Old English

language of a template for the diphthongal nucleus thus produced - in this case diphthongs with a high second element. As Colman points out (p. 46), following Lass & Anderson 1975: 195, the characteristic Old English diphthongal sequence was of the following type:

(40)

$$\begin{bmatrix} V \\ +\,syll \\ -\,back \\ \alpha\,lo \end{bmatrix} \qquad \begin{bmatrix} V \\ -\,syll \\ +\,back \\ \alpha\,lo \end{bmatrix}$$

She concludes (pp. 41, 46), following Lass and Anderson (1975: 195) that, since the requisite diphthong template did not appear until the Middle English period (see below), the "OE .... substitution of *i* for *g* reflects, not vocalisation, but the phonetic similarity of non-syllable-initial /j/ .... to /i/". The requisite Middle English diphthong template was created by developments such as Middle English 'breaking' which epenthesised a high, front vowel before [ç] and [x], thus forming new diphthongs of the following type:

(41)

$$\begin{bmatrix} V \\ +\,syll \end{bmatrix} \qquad \begin{bmatrix} V \\ -\,syll \\ +\,high \end{bmatrix}$$

Support for Colman's conclusion comes from evidence that the diphthongal sequence shown at (40) above is the preferred type in Old English. This may be gathered from the behaviour of Old English diphthongs generally (whether inherited from Germanic or subsequently phonologically-developed in Old English) in line with the principle of DHH which requires that the height of the second element of a diphthong be adjusted to concur with that of the first (cf. Lass and Anderson 1975: 34-35; 91; 212). So, e.g., the second element [-u̯] of PreOE [æ:u̯] lowers

to [ɑ̂] to accord in height with the first element [æ:] (Campbell 1959: §§275-276). The regularity with which DHH normally applies in Old English argues against the existence of a template for diphthongal nuclei consisting of a [- high] first element and a [+ high] second. Without such a pattern, word-final /j/ could not be vocalised, as Colman says. Consequently, [-high] and [+ high] diphthongs like the [æ(:)i̯] and [e(:)i̯] proposed by Campbell and Hogg are unlikely to have structurally acceptable in Old English and their suggestion that <-æi> and <-ei> spellings represented such segments may therefore be rejected.

3.2.2 The second principle, an inevitable corollary of the first, namely **that the Old English spelling system(s) perfectly expressed and matched** the Old English sound system(s), i.e., that Old English spelling was broad phonetic, is actually given expression by, for instance, Campbell when he writes (1959: §31) of "the phonetic value of [the vowel] symbols" he lists for Old English - this comment introduces his section on *Writing, Orthography and Pronunciation.* Theoretical considerations, however, and the evidence of Old English spelling itself belie this approach to the interpretation of writings in Old English. Penzl (1957: 197), in putting forward a methodology for the linguistic interpretation and analysis of historical spelling evidence attempts to define the relationship between spelling and phonology thus:

> Alphabetic writing itself in its inception used to involve a certain 'phonemic' interpretation of the sounds on the part of scribes and authors, particularly if they wrote their own native language or dialect, when they would attempt to render the essential units of their phonemic system and would not be aware of allophones.

This somewhat vague formulation (what, for instance, does "a certain 'phonemic' interpretation of the sounds" mean?) is expressed more clearly by Jones (1967: 253):

> [P]eople possess what the eminent American linguistician EDWARD SAPIR .... called "phonemic intuitions", which come into action as soon as they begin attempting to write their own languages alphabetically. They work with phonemic intuition as long as they are phonetically untrained, and as long as they remain uninfluenced by alphabetic traditions (which always grow up sooner or later). They know by a sort of instinct which differences between speech-sounds are capable of distinguishing words in their own languages, and as a rule they do not notice other phonetic differences which may exist but which are not capable of distinguishing words. In other terms, it is natural that in their early attempts at representing their languages by means of an alphabet men should write them phonemically.

These comments support the reasonable expectation that Anglo-Saxon scribes, when writing their own language, would use a spelling system which operated according to fundamentally phonemic, rather than phonetic, principles (but see §§3.4.1 and 3.4.2 below, as well as further, §§5.1.1 to 5.1.2. 3). The likelihood of this is increased when it is also considered that the spelling system, based on the Roman-letter alphabet, used for writing Old English was an adoption and adaptation of the orthographic systems already established and in use for the representation of Latin and Old Irish (for language labels used and their denotation, see further Ch. 4). Allen in his *Vox Latina* observes of the Latin spelling system, which formed the basis of that used for Old English, that it

> .... comes very near to being completely phonemic. The principal shortcoming in this respect concerns the vowels, since no distinction is made in standard orthography between short and long ....; also no distinction is made between consonantal and vocalic *i* and *u*.
>
> (1965: 9)

In practice, the Old English data presented thus far - in Chapter 2 - bear out this expectation that Old English spelling will by and large represent only the most significant or distinctive segments (though see further below *passim*). The mode of representing the fricatives discussed earlier for instance, shows that this principle did generally apply in the writing of Old English; only the linguistically-distinctive segments, *viz.*, those units out of a class or set of phonetically-similar phones which function to distinguish meaning (cf. Lass 1984a: §§2.3 and 2.4) were given graphic representation. Thus the systemic, contrastive units - phonemes - /x/, /f/, /θ/ (and /s/, though this phone was not included in discussions in Chapter 2) were indicated most consistently in Old English spelling by the graphs ⟨h⟩, ⟨f⟩, ⟨ð⟩ or ⟨þ⟩ (and ⟨s⟩) respectively, while the non-systemic, mutually-exclusive exponents of these phonemes - the allophones [x] and [h], [f] and [v], [θ] and [ð] (and [s] and [z]) respectively, were not given separate representation and were spelt with the same graphs just listed. This lack of representation in the spelling can be reasonably attributed to the voiceless cf. voiced difference between the two exponents of each phoneme not being a phonemic, but a contextually-conditioned and predictable, hence sub-phonemic one.

Given, however, that the voiceless and voiced member of each set of fricative phones is spelt identically and, moreover, that their distribution seems to be wholly complementary - the features [± voice] being predictable and determined by phonetic context (cf. again Figures (15), (16) and (25) in Chapter 2), phonemic status could arguably just as plausibly be assigned to the voiced, rather than the voiceless member and allophonic to the voiceless, rather than the voiced. The

classification adopted here could therefore be described as an unmotivated, arbitrary choice.

Certainly, it is the expect one in terms of the implicational universal that no typological or 'natural' phonological system may contain a voiced, i.e., 'marked', representative of any obstruent category (in which fricatives are included) unless it also previously has the corresponding voiceless, i.e., 'unmarked' one - but not *vice versa* (cf. Lass and Anderson 1975: 169, 218, etc.; Lass 1984a: §§7.4; 7.6 and references therein to Jakobson 1941). But our classification, if it must rest on this universal is not justifiable. Lass (1984a), having defined (p. 132) the category *marked* by means of seven criteria, the last of which is relevant here, *viz.* that a "marked segment .... tends to imply the existence of its unmarked counterpart", states that "the evidence with regard to [this criterion] seems not to be true". He points out further (p. 167) that the implicational universal discussed here is "generally taken as absolute, but [isn't]" and supports both claims by producing (p. 148) evidence on Australian languages which have voiced obstruents, but no voiceless ones. Moreover, as Lass and Anderson (1975: 218) say "even if the [universal] is true, [which it appears not to be] such an implicational statement says only that if there is one phonetic type it will be voiceless" and, in any case, they, not unreasonably, "see no reason for projecting such distributional facts into the lexicon of a language [i.e., Old English] that has both [i.e., voiceless and voiced] phonetic types".

The present classification may, however, be accepted and with it, the claim that Old English spelling was essentially phonemic, if (1) the distributions and representation of the fricatives in Old English are

analysed more closely and (2) the evidence of Middle English developments affecting the fricatives are also taken into account.

3.2.2.1 ***The Old English Evidence***

This may profitably be examined by focussing on the Old English phones [f] and [v]. This 'labial' (a term to cover the conflation of the bilabial and labio-dental places of articulation) group of fricatives is fairly representative of the Old English class of fricatives as a whole, e.g., the [f] ~ [v] pair show broad affinities with the [θ] ~ [ð] and [s] ~ [z] pairs in terms both of their distributional patterns and mode of representation (cf. Anderson 1988a: §§1.1, 1.2) and, at the same time, the behaviour of this group is less uniform and more incongruous than that of the [θ] ~ [ð], [s] ~ [z] correlates, so that it also shows affinities with the rather more complex velar group of fricatives [x] ~ [h] ~ [ɣ] (~ stop [g]).

Anderson (1988a: 97), working on the reasonable and economic assumptions that "arbitrary phonemic assignments are to be avoided" (cf. §3.2.2 above) "and attribution of defective distribution minimised", casts doubt on the appropriateness of the traditional view (implicit in e.g., Sweet 1882: §3) that the voiced labial fricative should be assigned, like the voiced non-grave fricatives alveolar [z] and dental [ð] to a single contrastive unit (or phoneme) whose existence may be posited, and allophony formulated, on the evidence of synchronic distributions. So, for example, a single phonological unit, represented by ⟨ð⟩ (or ⟨þ⟩), may be established on the basis of the contrasts into which its voiceless/voiced members enter with their stop congeners. These are shown by minimal (or near-minimal) pairs like those given by Anderson (1988a): for word-initial position, see his Figure (12a), for word-final

position, see his Figure (12b) and for word-medial position, see his Figure (12c). These word-initial, word-final and word-medial occurrences show [θ]/[ð] and [s]/[z] in commutation with their stop counterparts, voiceless [t] and voiced [d] and are therefore sufficient to establish a dental fricative phoneme and an alveolar fricative phoneme respectively.

That [θ] and [ð] are manifestations of one phonemic unit is shown by their complementary distribution - outlined already at Figure (16) above; this agrees in all points with the corresponding complementary distribution of [s] and [z] - for illustration, see Anderson (1988a: Figures (3), (5), (6a), (7a), (8) and (9a)). The allophony of these two phonemes may therefore, following Anderson (1988a: Figure (10)) be formulated thus:

> (42)
> [z]/[ð] [will occur] in the environment:
>
> [+ voice] X _____ Y [+ voice], within the word and where X and Y are non-segmental and X ≠ morpheme boundary and Y ≠ foot (or root-initial) .... boundary;
>
> [s]/[θ] [will occur] elsewhere.

As Anderson states (1988a: 93), "for most of the OE period [f] and [v] are in complementary distribution; and their respective occurrences correspond to the pattern for voiced and voiceless fricatives [just] formulated ....". This can be seen also in Figure (25) in Chapter 2. But an examination, analogous to that undertaken for [θ]/[ð] and [s]/[z], of the positions in which the voiceless and voiced members of the labial fricative contrast with their stop counterpart shows a phonological relationship which differs from that described above for the dental/alveolar pairs - see Anderson (1988a): for word-initial contrasts of [f] ≠ [p] ≠ [b], see his Figure (14a), with the addition of *bell*

'bell/clamour'; for word-final [f] ≠ [p], see his Figure (14b); for word-medial [v] ≠ [p] contrasts, see his Figure (14d) and for word-medial contrasts of [ff] ≠ [pp] and [ff] ≠ [bb], see Figures (14c) and (15b) respectively. From these pairs - minimal and near-minimal in all cases except the latter one (pairs illustrating medial [ff] and [bb] are difficult to find because, as Hogg says, the geminate [ff] "is extremely rare" (MS.: §2.58; 1982a: 190) - it can be seen that [f] contrasts with [p] word-initially and word-finally, as well as in gemination, while [v] and [p] contrast word-medially. "However, a labial fricative contrasts only initially and in gemination with whatever is represented by <b>, presumably through most of OE a bilabial plosive, given .... [its] subsequent history" (Anderson 1988a: 94). [b] does not therefore occur medially; word-finally it is found only after a nasal consonant as in, e.g., *lam**b**,* and in this context [f] does not occur (nasals were lost from the Ingvaeonic languages - Old Saxon, Old Frisian and Old English in the Germanic period before a fricative (Campbell 1959: §§119, 121): compare OE *fīf* 'five' with OHG *fimf*.

It should be noted that a word-final contrast between [b] and [f] (also [p]) could perhaps be postulated, as exemplified in the following near-minimal pairs:

(43)

<web> 'web' ≠ <wef> 'weave (Imp Sg)' ≠ <wēp> 'weep (Imp Sg)'
<b>:[b] <f>:[f] <p>:[p].

Hogg (MS.: §2.53) claims that such a [b] ≠ [f] contrast existed, but that it was possible only after degemination of word-final consonants. Hogg, following Kurath (1956) interprets inconsistent doubling of consonant graphs in this position as evidencing this change (MS.: §2.78 (1)) - this doubling of graphs can be seen in, for instance, one of the items cited

above - ⟨webb⟩ alternates in Old English manuscripts with ⟨web⟩. Anderson (1988a: fn. 1), however, assumes, also on the basis of Kurath's evidence, that the inconsistency in spelling points only to non-contrastive status for consonant length in word-final position, i.e., he does not interpret the data, as Hogg does, as evidencing complete loss of consonant length word-finally. Campbell, on the other hand (1959: §§66, 457) sees this frequent simplification of double consonant symbols as being "only a graphic simplification" with no phonological basis. The status of word-final degemination as a phonological development is therefore uncertain. Moreover, before a voiced stop and a voiceless fricative could contrast word-finally, degemination (if it did occur) would have to have taken place before the devoicing of word-final fricatives (cf. Campbell 1959: §§446, 448, 449, 451). This, as Hogg points out (MS.: §2.78 (3)) is "unlikely": the former would have occurred at some unspecified time during the literary Old English period (and Campbell observes - 1959: §66, fn. 4) - that, as late as the 10th century "final double consonants are written with remarkable regularity" in the *Lindisfarne Gospels Glosses*); the latter, according to Campbell (1959: §451) "began prehistorically". The available evidence concurs, then, with Anderson's statement quoted above - a word-final [b] ≠ [f] contrast, at least in the early Old English period, cannot be posited.

The asymmetries of distribution just described mean that [v] is in complementary distribution with [b] as well as [f] in non-word-final position. [v] also shows phonetic affinities with both [b] and [f]: obviously, all are labial; like [b], but unlike [f], [v] has voice; like [f], but unlike [b], it has continuancy. Anderson (1988a: 94) plausibly concludes from this patterning that it "suggests neutralisation rather than

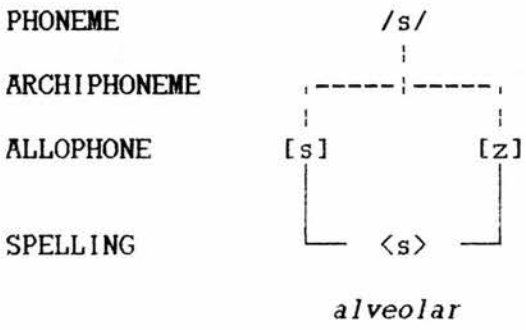
allophony", i.e., [[v]] is the realisation or archiallophone (I owe the suggestion of this term - a reshuffling of my original - to Roger Lass - personal communication), as signified here by the double square bracketing, of an archiphoneme //V// (indicated by the use of double oblique brackets as in Anderson (1988a), itself the product of neutralisation, word-medially, of the /f/ ≠ /b/ opposition (on *neutralisation* and related concepts, see e.g., Lass 1984a: Ch. 3 or Hyman 1975: §§3.2; 5.1.2). The voicedness of the archiallophone, perhaps unexpected because [+ voice] is 'marked' (cf. Lass 1984a: §3.4; Hyman 1975: §§1.2), is explicable in terms of assimilation of the archiallophone to its phonetic environment; this, as specified earlier (cf. Figure (42) above) is [+ voice]X _____Y[+ voice] - this environment determines its voiced quality. Similarly, given that no word-final /f/ ≠ /b/ contrast occurs, [f] could also be regarded as the archiallophonic realisation [[f]], in this position, of the archiphoneme //V// - the product here of a suspension of the early Old English opposition between the voiced and voiceless fricatives, /β/ and /f/ respectively, inherited from Germanic. The archiallophone is devoiced because it occurs word-finally (cf. Campbell 1959: §§444, 446).

Spelling evidence, such as that cited in Figure (25) in Chapter 2 - supports these analyses: early Old English texts at first use the graph <b> word-medially and finally; this is superseded by <f>. A bilabial place of articulation, rather than a stop manner of articulation, is probably being indicated by the use of <b>, a suggestion which is given credence by Anderson's comments (1988a: 97):

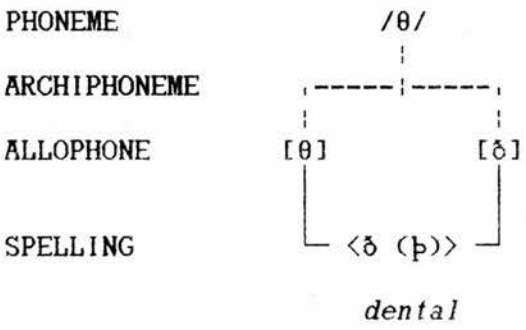
> that these [<b> spellings] represent a voiced fricative is suggested by the subsequent development to a voiceless fricative represented <f> and by a source in both medial and final position in fricativisation of IE /bʰ/ and Verner's Law voicing of /f/.

This interpretation which allies [v] not only with [f], but also with /b/ in a relationship involving neutralisation "more adequately characterises" (as Anderson 1988a: 101) the distribution of these phones than the usual view which "assimilat[es] the situation with the labials to that appropriate for the dental [and] alveolar [fricatives]" (see also King: forthcoming). These relationships may be formulated, following, with some modifications, Anderson (1988a: Figure (29)), together with those, for comparison, involving the dental and alveolar fricatives and the voiceless velar, for the period after word-final fricative devoicing and the mergers and splits affecting /β/, as follows:

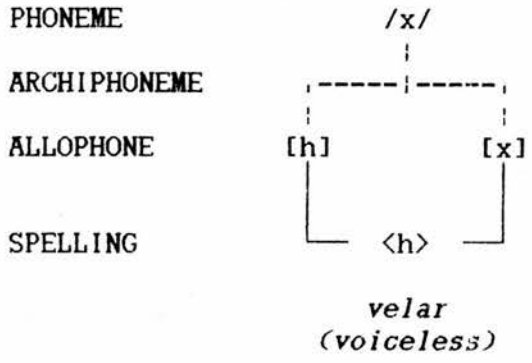
(44)



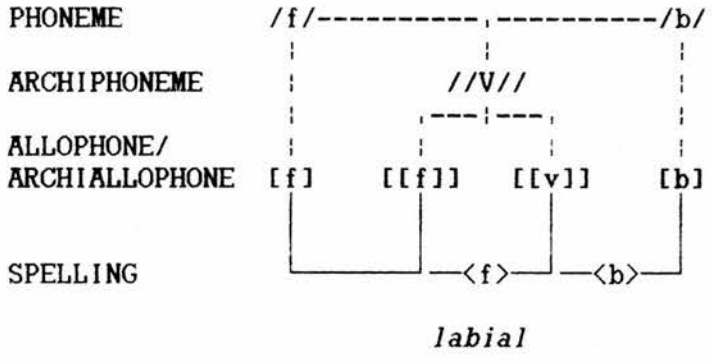
(45)



(46)



(47)



3.2.2.2 *The Middle English Evidence*

The accuracy of the conclusion to which the evidence just presented seems to point, i.e., that phonemic status should be assigned to the voiceless and not the voiced phone of the dental. alveolar and labial fricative pairs in Old English, may be tested by looking briefly at how, for instance, the labials [f] and [v] developed in Middle English.

Three factors are implicted in the developments affecting these fricatives (for a fuller account, see Kurath 1956: 435-445, which should be considered in the light of the reservations expressed by Sledd 1958: §1.2 and Peters 1967; see also Jordan 1974: §157). These factors are:

(1) the operation of (Middle English) Open Syllable Lengthening (cf. §1.5.2 and references therein), between some time in the 11th century (in the North; in the North Midlands, not much later) and the early 15th century (for some parts of the

South). This contributed to the loss of phonemic status in the reflexes of the Old English geminate voiceless fricatives word-medially and to their simplification, thus [ff] → [f];

(2) the Middle English distribution of [v], restricted mainly at first[15], to the same word-positions as in Old English (cf. Figure (25) in Chapter 2), was extended to word-initial position during the 13th century, because of the borrowing of loanwords from French, such as *vertu, verie, veile* which had, and therefore introduced into Middle English[15], word-initial [v] (cf. Jordan 1974: §157, n. 4);

(3) the loss of word-final unstressed [ə] (posited despite the retention of <-e> in spelling) at various times depending upon dialect area - cf. the timing of Open Syllable Lengthening above with which it is implicated. This meant that [v], previously occurring only word-medially, now occurred in word-final position too (except in the North where it devoiced in the 13th century to [f], cf. Fisiak 1968: §2.5.7, n. 1 ; Brunner 1963: §36, n. 3; Jordan 1974: §§158, 217 and see also the references in §1.5.2 above).

Because the Old English distribution of the phones [f] and [v] had been more or less retained in early Middle English, the developments just outlined meant that [f] and [v] now contrasted in all positions in the word, thus (numbers here correlate with those just above):

(1) word-medially [f], as well as [v], now occurred, so e.g., *offren* 'to offer' with [f], cf. OE *offrian* with [ff] and *ouer* 'over' with [v], cf. OE *ofer* with [v];

(2) word-initially — [v], in French loanwords, as well as /f/, now could occur, so that /f/ ≠ /v/, as in ***uele*** 'veal' with /v/, and ***fele*** 'many' with [f], cf. OE ***fela*** with [f];

(3) word-finally — [v] now was found and so was in parallel distribution with [f], thus, e.g., ***gref*** 'grief' (French loan) with /f/ contrasts with ***greue*** 'to grieve' (French loan) with /v/ or ***uuif*** 'wife' with /f/, cf. OE ***wīf*** with [f] contrasts with ***uuyue*** 'to wive' with /v/, cf. OE ***wīfian*** with [v]. These last two examples show, incidentally, that the borrowing of French loanwords was not the only factor in the phonemicisation of word-final [v] - schwa-loss was partly responsible too.

These developments indicate that [v] could not have gained phonemic status until the Middle English period; only then, when the factors existed for it to become a phonemically-distinct segment, was it given a consistently-different spelling: the graph ⟨u⟩, mostly word-medially (cf. Jordan 1974: §17), or later, ⟨v⟩, especially word-initially (cf. Jordan 1974: §17) at first used alongside, and then replacing, ⟨f⟩ (cf. Fisiak 1968: §1.59). These different graphs, or at least ⟨v⟩ were brought into general use under the influence of, or due to support by, French scribal habits. Compare, for example:

ME ***vatte***	with	OE ***fæt***	'vat';
ME ***vixen***	with	OE ***fixen***	'vixen';
ME ***gyuen***	with	OE ***gī(e)fan***	'to give'.

In the light of the preceding discussion, then, it appears that the classification assigned at the outset (§3.2.2) to the voiceless fricative phones in Old English was accurate.

3.2.2.3 Phonemic status for these phones now having been established with the help of the synchronic Old English evidence and that of the Middle English developments which followed, the claim dependent upon this - that Old English spelling was essentially phonemic - can now also be shown to be justified. As is made plain by Figures (44) to (47), a distinct graph is used in Old English spelling for each fricative phoneme. The graphs ⟨s⟩, ⟨h⟩ and ⟨f⟩, employed for the phonemes /s/, /x/ and /f/, are used also to represent the allophonic segments [z], [h] and [v] which differ minimally from the respective phonemes to which they belong and with which they are not in contrast. Exactly the same considerations apply to the dental fricatives [θ] and [ð] - the phoneme and its voiced allophone were represented predominantly by the graph ⟨ð⟩ (⟨þ⟩ was also used, for the most part in free variation with ⟨ð⟩, cf. §2.3.3.1, but compare Stockwell and Barritt 1961: 79 who, however, present evidence only from half of one manuscript). With two graphs available, it would have been an easy matter to reserve one for the representation of the voiceless phone and the other for the voiced, i.e., to use allophonic spelling. This did not happen in this particular instance, however. Archiphonemes also share their representation with the phoneme - the most distinctive segment - with which they share an allophone.

3.3 *BALANCING TRADITIONAL ACCOUNTS*

The findings produced by these discussions of the assumptions, principles and procedures underlying orthodox accounts of Old English spelling therefore count against traditional approaches being a sound or reliable foundation upon which to base the interpretation of Old English spelling. Because, in theory and practice, Old English spelling was systematised along fundamentally phonemic lines (see further §3.4 below), the second apparent principle (given earlier at §3.2.2) is discredited. The first (cf. §3.2.1), applied in the belief that Old English spelling consistently and faithfully represents Old English phonology, has provided to be linguistically unviable (see also §3.4 below). As a *modus operandi* it is clearly unrealistic in that it places an over-reliance, unwarranted in the face of the Old English evidence, on the non-failure of Old English spelling to represent Old English phonology. This results in the neglect or ignoring of factors which are important, from the points of view of linguistic plausibility and fidelity to the supposed linguistic content of the Old English data, for the phonological interpretation and analysis of these data, e.g., morphological or syllable structure (relevant, as will be recalled, to both the ⟨ea⟩ and ⟨æi⟩/⟨ei⟩ graphs considered above).

There is no evidence to suggest that scribes approached the writing of Old English in a haphazard way, yet such is the variety of Old English spelling and the reasons for this variation are so diverse (not all of them linguistically-motivated, as will transpire) that its meaningful interpretation and elucidation as a source (or not) of phonological information about Old English demand a systematic and exact investigative approach. To this end, two taxonomies are crucial: first of all, one of Old English spelling and secondly, one of Old English scribal practices

- especially those of the earlier (pre mid 8th century) period which will the primary concern of the remainder of this thesis. Traditional approaches, and consequently their output (as we have seen) suffer badly from the lack of a taxonomy, or at least a taxonomic approach, in either area. The rest of this Chapter will therefore be devoted to putting forward these classifications and principles for classification. When formulated, they should help ensure that the spelling evidence is approached and investigated in a coherent, methodical and sufficiently-critical way. They will also go some way towards avoiding the difficulties generated in and by traditional accounts because they will provide, from recorded Old English data and expectations about how an Old English spelling system would be likely to operate, a set of criteria against which spelling data can be measured, described and assessed as evidence (or not) for Old English phonology.

3.4 *A PROPOSED TAXONOMY, OR CLASSIFICATION, OF OLD ENGLISH SPELLING IN TERMS OF ITS RELATIONSHIP TO OLD ENGLISH PHONOLOGY*

It may be assumed that the data looked at up until this point are fairly typical of Old English spelling practice as a whole. Taxa will therefore be extrapolated from them and, where necessary, supplementary data. The taxonomy which follows has taken as its starting point the account given by Colman (in press) of the extent to which the Old English spelling and phonological systems correlate with each other. It is divided into two parts: *A. Principles of the Primary Synchronic System available to all Dialects of Old English at any one given time* and *B. Secondary Synchronic Principles superimposed upon*

the Framework of the Primary Synchronic Orthographic System of Old English.

PRINCIPLES OF THE PRIMARY SYNCHRONIC SYSTEM AVAILABLE TO ALL DIALECTS OF OLD ENGLISH AT ANY ONE GIVEN TIME

3.4.1 *Mutual Dependence and Partial Independence of Orthographic and Phonological Systems*

1. Each Old English graph in general represents a sound-segment

This may be gathered from forms like WS *hēafod* 'head', or Nb *sēa* 'to see' (cf. §3.2.1) where each of the graphs making up the digraph corresponds to a sound-segment, thus:

(48)

hēafod	*sēa*
↓↓	↓↓
⟨ea⟩	⟨ea⟩
[æ:ɑ̯]	[e:] [{ɑ}] [{ɒ}]

(see Principle 11 below on the graphotactic constraint leading to the use of the digraph ⟨ea⟩ to represent [æ:ɑ]). This orthographic ~ phonic correlation does not, however, always hold (cf., e.g., G. Bauer 1986: 208) and so the following proviso must be added:

2. Each Old English graph need not represent a sound-segment

This is shown by forms like WS *geār* 'year', or *sēcean* 'to seek' (cf. §3.2.1 and references therein) in which only one of the graphs of which the digraphs consists can plausibly correspond to a sound-segment, thus:

(49)

geār	*sēcean*
↓↓	↓↓
⟨ea⟩	⟨ea⟩
⟨e⟩ [æ:]	⟨e⟩ [ɑ]
↓	↓
C [+ palatal]	C [+ palatal]

The <e> diacritics, rather than expressing phonological content, have a phonological signally function; they do not represent a sound-segment *per se*, but instead, indicate a phonological feature: [+ palatal], of the preceding segment.

Partial independence of orthography and phonology would be an expected feature of the Old English alphabetic spelling system used in manuscripts given that the Latin one which was its model could provide an analogy. Allen (1965: 28-31) and Wright (1982: 55-56; 79) describe the concept of the 'silent letter' familiar to, applied and recommended by scribes and grammarians of Imperial and Late Latin, i.e., Latin of c. 2nd century A.D. - the beginning of the 5th century A.D. (in its written and putatively-spoken forms in the parts of the Roman Empire of relevance to the Anglo-Saxons learning Latin, i.e., Rome and Gaul [= present-day France] only, Spain being excluded because it is irrelevant to the present purpose) and c. 5th century A.D. - c. early 9th century A.D. (in its written form only) respectively; another term - Proto Romance - is reserved for the spoken language of the period; both terms relate once more to the written and spoken varieties of Rome and Gaul, (cf. just above); the dating and nomenclature used here, and throughout this thesis, are based on Wright's (1982: 52-54) and personal communications - it should be noted, however, that there are differences of detail between his usage and mine (e.g., I use the term *Late Latin* to refer to the written language of the Imperial Latin period while Wright would not, so far as I can gather, differentiate between the two). The 'silent letter' was a graph which, though it was to be written, carried no sound-value. So, e.g., IL /m/, when word-final in a polysyllabic word,

as in e.g., *passim* 'here and there/far and wide' was lost (this is evidenced in Imperial Latin spellings of such words which occur without the word-final <m>, e.g., *passi* in the 3rd-century tract describing orthography - the *Appendix Probi* - cited by Pope 1934: §205). In general, however, the graph <m> continued to be written in this context, where it functioned only as a diacritic to indicate two phonological features: [+ nasal] and [+ long], of the preceding vowel and not as the orthographic representative of the consonantal sound-segment /m/.

3.4.2 *The Phonological Status of Sound-segments represented by those Graphs which directly express a Sound-value*

3. <u>Each graphic difference commonly represents one between contrastive sound units in Old English</u>

This principle, of course, is slightly circular as it depends to some extent on the phonological theory which informs the interpretation of the data as a source of phonological evidence. The one here is, for instance, obviously influenced by the widely held view of the phoneme as the fundamental linguistic unit (cf. §3.2.2 above). Such a view is not held by, for example, Toon who, in addressing the question of the relationship of, in particular, the Mercian orthographic system to its phonological system states:

> As all the variable data of this study must represent free variation or the output of optional or variable rules the writing system obviously does not correspond to either an autonomous or a systematic phonemic level. To make any sense of the data studied here, one must assume .... that a scribe's habits are motivated by surface phonetic forms. .... Linguistic contrast is an important fact about how languages operate, and a writing system must be able to convey the important linguistically significant contrasts of its language. But linguistic significance does not reside exclusively in contrast and scribes (unconsciously) recorded their phonetic habits.
> (1983: 210-211)

Many questions arise from such a view of Old English spelling and its interpretation. Toon, in his keenness to claim the system and "linguistic significance" for the spelling data he is examining, which he supposes would be denied by either an autonomous or systematic phonemic approach to its interpretation, asserts that they are allophonic. His 'solution', however, contradicts his claim. By approaching the spelling from a wholly phonetic angle, and by being willing to see it only as a vehicle for the expression of phonetic units, i.e., by interpreting graphic variety as allophonic representation, he ignores the autonomous orthographic aspect and, in effect, denies system to the spelling *qua* system (on the inter-relations of spelling variation and system, see further below). Moreover, as Colman and Anderson (1983: §2) show, Mercian data are explicable in terms of a strict phonemic theory, and in a way that does not deny system to the spelling.

It is also highly improbable, once an Old English spelling system had been introduced and fixed on a predominantly phonemic footing that "a scribe's habits" would suddenly, or even gradually, change and become "motivated by surface phonetic forms" to the extent Toon claims. That Old English manuscript spelling had originally been established as a phonemic system is, as discussed previously (cf. §§ 3.2.2 - 3.2.2.3) what would be expected given its Latin-based source (on which see Ch. 5 below). That it continued to operate as such is suggested by the manuscript evidence: if Old English spelling did operate at a phonetic level, the manuscript data would show much less regularity and stability of graphic usage than are to be found overall. It would also require a much larger inventory of graphs and/or graphic devices than were available, or employed, for writing Old English in order to represent

even major allophones, let allone all the possible allophonic variants. A phonetic spelling system would, furthermore, be cumbersome and impracticable to use and would also be unsuitable for the purposes of communication served by manuscripts for it would render their contents more or less virtually inacessible to anyone other than the scribes who wrote them. Or, to repeat Toon's own phrase, they would have little or no "linguistic significance".

Taken together, all of these considerations lead to the inevitable conclusion that Toon's view must be repudiated (see further below, however) and that the primary synchronic spelling system available to and used by writers of all dialects of Old English was a phonemic one. It follows then that the principle stated at the outset must be allowed and that graphic differences of the kind seen in the following pairs of forms, for example, do commonly represent ones between contrast phonological units in Old English, in this case, <d>:/d/ ≠ <t>:/t/:

(50)

<dūn>	'hill'	cp.	<tūn>	'enclosure';
<lædan>	'to lead'	cp.	<lætan>	'to let';
<bād>	'he/she/it waited'	cp.	<bāt>	'he/she/it bit'

In these forms, the <d> and <t> graphs are commutable word-initially, word-medially and word-finally, and are obviously capable of signalling a phonological difference in each case, which in turn signals a difference in meaning between each form of each pair.

While what has just been said applies to most graphic differences enocuntered in the primary Old English spelling system, there are a few instances of graphic variation within this system which cannot be regarded as correlating with differences between contrastive units. Thus:

4. A graphic difference does not invariably represent one between contrastive units in Old English

This is illustrated most simply in the form of the graphic redundancy discussed earlier in relation to the two differently-shaped and differently-derived graphs <ð> and <þ> (cf. §2.3.4.1). These co-occur in apparent orthographic free variation (in those areas and at those times when the use of both graphs coincides) to represent one phonemic segment /θ/.

A second instance, this time from the phonological, rather than the orthographic level, serves to illustrate the possibility that Old English spelling, though fundamentally phonemic, may on occasion register distinctions which are allophonic (though not, as Toon's theoretical approach to Mercian spelling requires, in a regularised way). Take, for example, the graphs <a> and <æ> used in Old English to represent the sound-segments [ɑ] and [æ], respectively. Where these graphs represent long vowel segments, *viz.*, [ɑ:] and [æ:] (in all dialects the former is derived from Gmc /ai/ and the latter from the operation of *i*-umlaut on OE [ɑ:], developed from Gmc /ai/ i.e. WS *ǣ*[1]- cf. Campbell 1959: §§132, 134; 197), there seems little doubt that the graphic difference <a> ≠ <æ> represents and corresponds to one between two contrastive units /ɑ:/ and /æ:/, as illustrated in the following minimal pairs (in which length macrons are editorial, rather than original):

(51)

<sā>	'bucket/tub' (Nom Sg Str Masc -*a*-stem Noun)	cp.	<sæ>	'sea' (Nom Sg Str Masc -*i*-stem Noun (though see Campbell 1959: §610.2));

<lāð>	'harm/injury' (Nom Sg Str Neut -*a*-stem Noun)	cp.	<læð>	'division of land' (Nom Sg Str Neut -*a*-stem Noun);
<māl>	'mole/spot' (Nom Sg Str Neut -*a*-stem Noun)	cp.	<mæl>	'cause/action' (Nom Sg Str Neut -*a*-stem Noun);
<drāf>	'drove/herd/band' (Nom Sg Str Fem Noun formed from Pret Sg of *drīfan*)	cp.	<dræf>	'explusion' (Nom Sg Str Fem Noun formed from root of *(for)dræfan*).
<hālsung>	'supplication/exorcism' (Nom Sg Str Fem -*o*-stem Noun).	cp.	<hælsung>	'divination' (Nom Sg Str Fem -*o*-stem Noun).

These are 'ideal' minimal pairs, i.e., ones of the same word class and morphological category, cf. the discussion which follows, in which a difference of meaning between the words in each pair is signalled by the occurrence of a different vowel graph in each word of the pairs, indicating the occurrence of a different vowel phone in them. A phonologically-motivated phonemic contrast /ɑ:/:<a> ≠ /æ:/:<æ> is thereby evidenced, and ascertainable as such in these pairs, independently of morphological factors. The words in each pair have identical morphological boundaries and are words of the same grammatical class *noun*; the occurrence of /ɑ:/ or /æ:/, and the concomitant differences of meaning in the words of each pair are not conditioned by, or to be identified only or partly with the aid of, morphological, i.e., non-phonological information.

Contrastive status cannot, however, so unequivocally be assigned to the short congeners of these vowels, *viz.*, [ɑ] and [æ], although they are represented in spelling, in a seemingly-analogous way by the use of the

same two graphs <a> and <æ> (on the question of identification of vowel length, see King 1988: *passim*). On the basis of a synchronic analysis of the data, particularly in West Saxon, as they appear after the complementary distribution of [ɑ] and [æ] - produced by Pre Old English First Fronting and 'Restoration' of [ɑ] before a back vowel - had apparently been upset by subsequent Pre Old English developments such as loss of medial vowels after short syllables (cf. Campbell 1959: §388; Colman 1983b: 272), e.g., *ardlīce* 'quickly', cf. *arod* 'bold'. The upsetting just referred to allowed the segment represented by <a> to appear before an unstressed front vowel as well as before a back one as etymologically expected. On the basis of this and other evidence, Colman (1983b) concludes that there is no watertight evidence to suggest that this complementary distribution gave way to a phonemic contrast between short [ɑ] and [æ]. That the two graphs <a> and <æ> used respectively to represent these two vowels indicated two separate phonemes is claimed by, for instance, Chatman (1958), Hockett (1959: 109), Kuhn (1961: 526-527) and Pilch (1970: §15.4.c). In outlining his "assumptions" about Old English scribal practice (and presumably also justifying the */ɑ/ ≠ /æ/* contrast he posits), Hockett (1959: §1) affirms that "any fairly regularly maintained distinction of spelling .... shows .... a PHONEMIC contrast in [the] pronunciation [of the scribe]" and he "reject[s] the notion that a difference in spelling can correlate with a merely ALLOPHONIC difference in pronunciation" (p. 111). The evidence about to be presented will show that Hockett's "assumptions" are too rigid. Aside from this, they are offered with little substantiation and what support he does adduce is depreciated by his approach. This fails

to take notice of and/or confounds, the orthographic and phonological levels and functions of an orthographic system like the Old English one.

Colman reaches her conclusion that <a> and <æ> represent allophonic values primarily by showing that supposed minimal pairs containing thes graphs are morphophonologically, rather than phonologically, motivated and/or related, as exemplified in this selection from her data:

(52)

(a) <fære>	'journey' (Dat Sg);	cf. <fare>	'I go';
(b) <græfe>	'style for writing or engraving with' (Dat Sg);	cf. <grafe>	'I dig'.
(c) <fære>	'a/the journey' (Dat Sg),-*ō*-stem noun;	cf. <fare>	'a/the journey' (Dat Sg)',-*a*-stem noun;
(d) <swæðe>	'a/the track' (Dat Sg),-*ō*-stem noun;	cf. <swaðe>	'a/the track' (Dat Sg), -*a*-stem noun.

As can be seen from the glosses to the pair of -*ō*-stem nominal word forms in (52a) and those of the pair of Strong Class III verbal word forms in (52b) - for paradigms see, e.g., Campbell (1959: §§570; 744) - both word forms in each pair are semantically related. In the forms here, as in the others cited by Colman (1983b: 276), <a> + front vowel (graph) in the following syllable is confined to the verbal ones, <æ> to the nominal (cf. Nominative Singular forms <fær> and <græf>). The word class therefore seems to determine the distribution of the phones represented by <a> and <æ> and they can be described as morphologically predictable. Furthermore, <a> + front vowel (graph) in the verbal forms represents the result of analogy within the paradigm (cf. Campbell 1959: §744 ; Colman 1983b: 276), i.e., they are the product of a morphophonologically-motivated development involving

intra-paradigmatic levelling of forms under the influence of more common word forms - in this case, the Infinitive - ⟨faran⟩, ⟨grafan⟩ - or the Present Indicative Plural - ⟨faraþ⟩, ⟨grafaþ⟩. The ⟨a⟩ forms are not, therefore, derived by phonological processes.

The nouns making up the pairs in (52c) and (52d), though they belong to two different declension sub-classes (for paradigms again see e.g., Campbell 1959: §§570; 585), carry the same meaning. This semantic identity disallows these forms (and others given by Colman on pp. 276-277) as minimal pairs, and hence as evidence for phonemic contrast between [a]:⟨a⟩ and [æ]:⟨æ⟩. In addition, it points to inter-paradigmatic levelling, again a morphonologically-motivated development, indicating that the distinction between these two declension sub-classes was blurred so that a word form of a noun of either sub-class could be assigned to, or given a word form syncretic with, either one of the two sub-classes.

In any case, the forms in both groups above which result from either type of paradigmatic levelling are not, as Colman says "sure evidence of even morphophonologically-determined contrast" (p. 277) because the levelling may be purely graphic - a suggestion which is strengthened by the evidence of free variation in spelling between ⟨a⟩ and ⟨æ⟩ (see below). If this were the case, the value represented by either ⟨a⟩ or ⟨æ⟩ in all of the pairs cited would be determined (in keeping with the workings of Vowel Height Harmony which seem to have operated in Old English, cf. Campbell 1959: §§111, ff.) by the front, or at least non-back, quality of the following unstressed vowel spelt ⟨e⟩, as the front phone [æ] (cf. Lass and Anderson 1975: 62-63). Reliance cannot therefore be placed on any of the forms presented at (52) as evidence for suggesting a breakdown of complementary distribution of [ɑ] and [æ] or

for positing a phonemic contrast between the two because the ⟨a⟩ ~ ⟨æ⟩ orthographic alternations found in these pairs are conditioned by morphological predictability or are ascribable to morphophonological or orthographic, i.e., non-phonological motivation.

These findings are supported by evidence that ⟨a⟩ and ⟨æ⟩ occur in orthographic free variation, especially before consonant geminates and groups - cf. Colman 1983b: 274-275 and my Footnote **16**. They are corroborated by the consideration that where either [ɑ] or [æ] undergoes lexicalised sound change (i.e., the phonological context which caused the change is lost after that change has occurred and its output - at first only an allophonic realisation because the conditioning context remains - becomes phonemicised, or lexicalised, as is often indicated by a new spelling of the affected segment - cf. the discussion of *i*-umlaut in Chapter 1), the result is ultimately a merger with the mid front vowel phoneme /e/:⟨e⟩ (cf. Colman 1983b: 278-280). This argues strongly that [ɑ] and [æ] were two allophonic members of one low short vowel phoneme.

The complementary distribution of [ɑ] and [æ] was not significantly disturbed in Old English until the 11th century when the development of unstressed vowels in inflectional suffixes (cf. Campbell 1959: §379) led to the non-morphophonologically-motivated occurrence of ⟨a⟩:[ɑ], before a front vowel graph ⟨e⟩ (probably representing the indeterminate vowel [ə] in which unstressed, back or front, vowels had largely coalesced by this date). Concurrently with this development, however, the stressed front vowel [æ] merged with [ɑ] in [a] (Campbell 1959: §329.3; Colman 1983b: 281). This can be seen at first in alternation between the ⟨a⟩ and ⟨æ⟩ graphs and then a growing tendency for ⟨a⟩ to replace ⟨æ⟩.

This loss of one of the potential phonemes, /æ/, prevents a phonemic opposition /ɑ/ ≠ /æ/ from being established.

If then, as seems hard to deny in the light of the foregoing evidence, the Old English sound-segments [ɑ] and [æ] must be regarded as two allophones of the low short vowel phoneme (/a/?) (cf. Strang 1970: §159; Prins 1974: §51 who also claim allophonic status for these phones), it follows that the graphic difference <a> cf. <æ> does not represent one between contrastive units, but one between mutually-exclusive, or allophonic, units. Again, as with Principle 2 enumerated above, a type for allophonic spelling as a feature in the Old English orthographic system is found in the Latin system which served as its model. Allen (1965: 26-27) describes how the borrowing of Greek loan words into Latin had introduced the digraphs <ph>, <th> and <ch>, e.g., *philtrum* 'a love potion', *thēsaurus* 'a store-house/treasure' and *chorus* 'a dance in a ring/chorus', together with their respective phonetic values [pʰ], [tʰ] and [kʰ]. Subsequently, voiceless aspirated stops developed in Latin itself "in the vicinity of a 'liquid' consonant (*r* or *l*" (Allen, p. 27). These were "merely an automatic variant of the normal voiceless stops [/p/, /t/, /k/]" in this environment and so "Latin would have had no need to indicate the aspiration .... in writing" (Allen, p. 27). Nevertheless, because suitable graphs were available, scribes of Latin did use them to represent these allophonic aspirated stops, whether they occurred in Greek loans or in native words, thus, e.g., <triu**mph**us> 'triumph/triumphal procession' (a Greek loan), <cen**th**urio> 'centurion', <pul**ch**er> 'beautiful'.

This occurrence of allophonic spelling in the writing of Latin and for writing Old English contradicts the views expressed by Penzl and Jones

(cf. §3.2.2 above) that scribes, in writing their own languages, especially when these have not been reduced to writing before, will (a) as a result of their intuiting the basic units of sound in their speech as phonemes, represent these in writing and (b) not even be aware of allophones, which obviously means that they will not, and do not, represent them in spelling. Recent evidence of several experiments, as reviewed and discussed by Derwing, Nearey and Dow (1986) verifies that, for some 20th-century speaker/hearers at least the linguistic reality posited for the phoneme by 20th-century theoretical linguists like Jones, Sapir or Bloomfield, is, more or less, warranted. Speakers of English, by demonstrating their ability and tendency to group positional variants together into a single conceptual class or category, i.e., to group by identifying them, the allophones of a phoneme together as members of that phoneme (Derwing *et al* 1986: 48), lend support to the idea of the phoneme as "an overt, conceptual unit" (Derwing *et al* 1986: 63). The perceptual reality of the phoneme for the phonetically-untrained native monolingual speaker is also confirmed, or at least not denied, by the experiments described in this article (p. 53), though, on this point and its relevance to the origins of the Old English spelling system, see further §5.1.2.1 below. Linell (1979: §§3.2, 3.3, Ch. 4 and §10.3.3, esp. pp. 48, 171) also speaks of the importance of the phoneme as a contrastive unit for planning articulation of utterances. The widely-held hypothesis at (a) above, and therefore its applicability to alphabetic writing, seem to be for the most part corroborated.

But, further experiments, described by Derwing *et al* in pp. 48 ff. of their 1986 paper, suggest that hypothesis (b) above cannot be wholly accepted, for they testify that linguistically-untrained speakers <u>can</u> quite

readily hear some sub-phonemic distinctions and that they can distinguish some allophones of the same phoneme from each other. This notion is backed up by Linell (1979: 205-205): ".... there is always *some* kind of awareness of the existence of language-specific allophonic details [and rules]" and ".... a low degree of consciousness is manifested in people's ability to register other speakers' deviant phonetic behavior [*sic*], i.e. speech in which language-specific rules are violated" although "[i]n most cases, people's awareness of the nature of deviations from habits defined by [these rules describing allophone quality and contexts of occurrence] is more diffuse than their awareness of deviations from phonemic patterns". If, therefore, native speakers are able to, and do, recognise even minor, relatively opaque allophones (such as word-initial aspirated [tʰ], used as one of the targets in the Derwing *et al* experiment) as linguistics units of some signicance or distinctiveness, and Classical Latin speaker-listeners could (cf. above), there seems no real reason why Anglo-Saxons should not similarly have recognised what were, after all, two major allophones - [ɑ] and [æ] in Old English. Given the factors listed below, it is surely not anomalous, or unexpected, that vowel quality differences between the short [ɑ] allophone and the short [æ] allophone would be perceived and consequently given representation in spelling:

(a) quality differences: back [ɑ] and front [æ] existed, regardless of phonological status, in the low vowel space of the Old English short vowel system;

(b) the representation in spelling of vowel quality seems to have had a higher priority for scribes of Old English than the

representation of vowel quantity, even although this was phonemic (cf. King 1988: §4.4.2);

(c) two separate vowel graphs <a> and <æ> were available to scribes of Old English to signify the quality differences [ɑ(:)] and [æ(:)];

(d) obviously-identifiable (because phonemic) quality differences existed in the Old English vowel system between the long congeners of these short vowels. It could be argued that this factor highlighted the parallel quality differences between the short vowels and contributed to them being recognised and, as a result, given separate representation in Old English spelling since this was available - see (c);

(e) Latin already provided a pattern for occasional allophonic spelling that could be followed in Old English.

So, although graphic differences do commonly represent ones between contrastive units in Old English, the case of <ð> and <þ> and <a> and <æ> show that graphic differences in the primary, synchronic spelling system are also ascribable (on the orthographic level) to graphic redundancy within the system, or (on the phonological level) to the occasional graphic representation of non-contrastive, allophonic sound-segments.

3.4.3 *Phonological Units and Levels and Orthographic Representation*

5. <u>Contrastive Sound-Units are generally accorded Distinctive Graphic Representation in Old English</u>

This is evidence in, for example, the use of two individual graphs <d> and <t> to indicate two contrastive units /d/ and /t/ respectively in the minimal pairs spelt <dūn> cf. <tūn>, etc., cited already under Principle 3 above, or in the use of two distinctive graphs <f> and <b> to represent the phonemes /f/ and /b/ while their respective allophones and

associated archiallophones are not given separate representation because they are non-contrastive units (cf. §3.2.2.1 and Principle 3 above). For the reasons given earlier (§3.2.2), graphic representation, within the primary, synchronic Old English spelling system, of contrastive units, is what we should expect. But, on the other hand, as anticipated there, not all the spelling data conform to this Principle. Allowance for this must therefore be made in the Taxonomy.

6. Contrastive Sound-Units belonging to, or operative at, more than one Phonological Level are not always given Correspondingly-contrastive Graphic Representation in Old English

A case in point relates to stressed vowel quantity which was contrastive in Old English. There is, however, a lack in the orthography of any systematic, consistent representation of this. For full details and discussion, see King (1988).

A further feature of Old English orthography which supports the formulation of a Principle such as 6 is the use in manuscripts of one graph to represent three different contrastive units (and their allophones). So, for example, the nuclear segments: high, front, unrounded syllabic /i:/ and /i/ and non-syllabic [i̯], as well as the non-nuclear ones: the voiced palatal approximant /j/ (also a high, front, unrounded segment) and its non-syllable-initial allophone [i̯], could all be spelt with the same graph ⟨i⟩. Likewise, the high, back, rounded nuclear syllabics /u:/ and /u/ and the non-syllabic [u̯], as well as the non-nuclear, non-syllabic voiced labio-velar approximant /w/ (also high, back, unrounded), and its non-syllable-initial allophone [u̯] could each be represented by the one graph ⟨u⟩.

That the sound-units presented here in oblique brackets were phonemic ones is shown by the existence of minimal pairs like the following:

(53)

For /i/:<i> ≠ /i:/:<ī> (length macrons editorial) -

<scima> 'shadow/gloom' cp.
<scīma> 'brightness/light/splendour';

For /u/:<u> ≠ /u:/:<ū> (length macrons editorial) -

<fullīce> 'fully/perfectly' cp.
<fūllice> 'foully/shamefully'.

(See also King 1988 for further details and pairs)

Pairs which allow phonemic status to be claimed for /j/ and /w/ now follow:

(54)

For /j/:<i> -

/$-, the Avs -

<iū> 'formerly' cp. <nū> 'now'

[j] [n]

/j/ ≠ /n/

or, the Past Ppls of the Wk Cl 2 Vbs *iucian* 'to yoke' and *tucian* 'to torment' -

<geiucode> cp. <getucode>

[j] [t]

/j/ ≠ /t/

/-$, the Str Masc -*a*-stem Ns -

<wei>[17] 'way' cp. <wer> 'man'

[i̯] [r]

/j/ ≠ /r/

or, the I/III Pret Sg of the Str Cl V Vbs *wegan* 'to weigh' and *wegan* 'to weave' -

<wæi>[17] cp. <wæf>

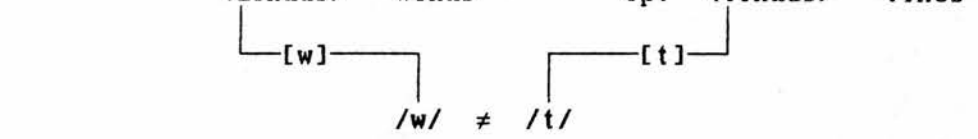
[i̯] [f]

/j/ ≠ /f/

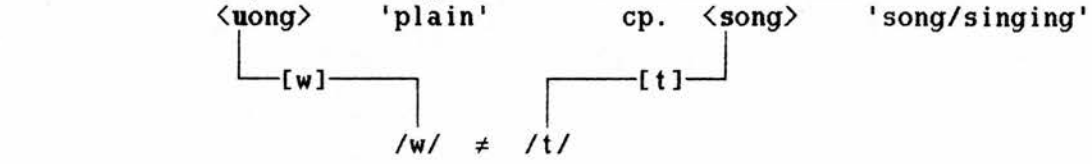
(54) continues over

For /w/:<u>

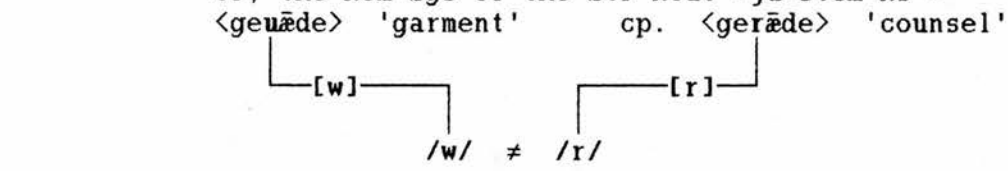
/$-, the Nom/Acc Plus of the Str Masc -*a*-stem Ns -



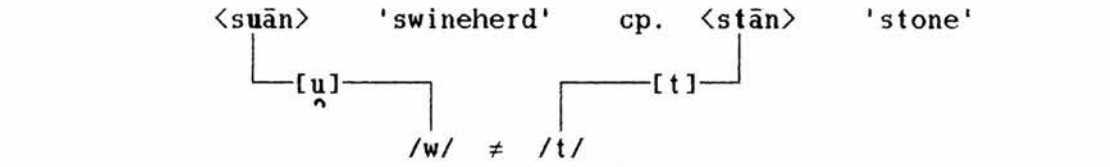
or, the Nom Sgs of the Str Masc -*a*-stem Ns -



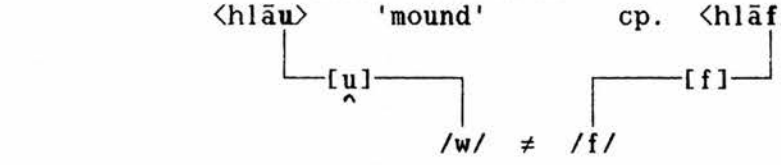
or, the Nom Sgs of the Str Neut -*ja*-stem Ns -



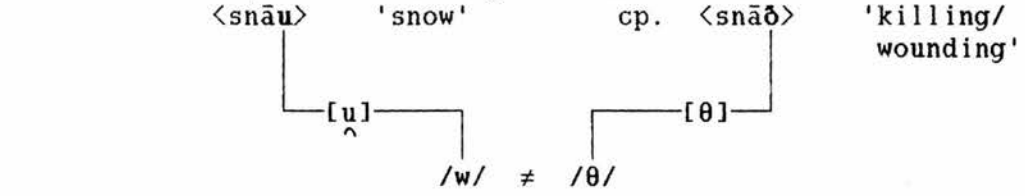
In contexts other than /$-, except /-$, the Nom/Acc Sgs of the Str Masc -*a*-stem Ns -



/-$, the Nom/Acc Sgs of the Str Masc or Neut (cf. Campbell 1959: §636) -*a*-stem Ns -



or, the Nom/Acc Sgs of the Str Masc -*(u)a*-stem Ns -



The fact that the graphs <i> and <u> were used for /i(:)/ and /j/ and /u(:)/ and /w/ respectively and continued to be employed for the spelling of the non-nuclear non-syllabics as well as the nuclear

syllabics and non-syllabics, despite the availability (and alternative use) of the graphs ⟨ȝ⟩ and ⟨ƿ⟩/⟨uu⟩[18] for the non-nuclear non-syllabics points clearly to a scribal practice which identified and reflected two things:

(1) the phonetic similarity of the non-syllable-initial allophones [i̯] and [u̯] of /j/ and /w/ and the non-syllabic allophones [i̯] and [u̯] of /i/ and /u/ (this use for both sets of segments of ⟨i⟩ and ⟨u⟩ was potentially confusing for manuscript readers, but it illustrates once more the importance attached to the representation of segment quality in Old English, despite the dissimilarity in function within the syllable of these sets of segments - cf. King 1988: §§4.4.1 - 4.4.3 for this consideration with regard to the representation of phonemic vowel length in Old English manuscripts).

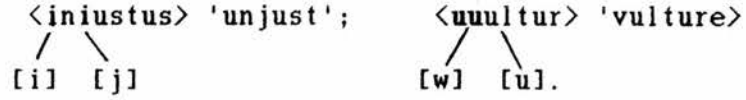
(2) the different functions of these phonetically-similar segments within the syllable (cf. Colman 1983a: 32-35). Vowels, whether syllabic or non-syllabic can function only as Nuclei (or constituents thereof). As a consequence of this central position in the syllable the vowels - here /i(:)/, [i̯] and /u(:)/, [u̯] - are only ever represented in spelling by a vowel graph - here ⟨i⟩ or ⟨u⟩ (which may, cf. King 1988: §3.2.2, very occasionally be doubled to indicate a long vowel). The consonants /j/ and /w/, with their allophones [i̯] and [u̯] share not only similarity of phonetic quality, but also non-syllabicity with the vocalic allophones [i̯] and [u̯]. This additional feature common to both consonantal and vocalic allophones further explains why ⟨i⟩ and ⟨u⟩ are used simultaneously for two sets of contrastive units which are qualitatively different (consonants are articulated with

more stricture than vowels). But, unlike the non-syllabic vocalic units [i̯] and [u̯], the consonants /j/ and /w/ and their allophones [i̯] and [u̯] can function within the syllable only as Onsets of Codas, i.e., they have a marginal position in the syllable. It would be reasonable then to infer that the use of the graphs <ȝ> and <ƿ>/<uu>, in addition to <i> and <u>, was intended to reflect and represent in a more directly-associable way, this extra consonantal feature of non-nuclearity.

As expected (from Principles 3, 4 and 5) therefore, the primary, synchronic Old English orthographic system was geared to representation at the segmental level of phonology, so much so that the orthographic needs of sound units belonging to, or functioning at, the suprasegmental as well as the segmental levels could not be comfortably met from the resources of this orthographic system (for instance long vowels or phonetically-similar but functionally-different sound units like the non-syllable-initial, non-syllabic and non-nuclear allophone of /j/ and the non-syllabic, nuclear allophone of /i/ just examined). Since this system was inherited from the Latin one this is not surprising - recall, in connection with the kinds of problems highlighted here with reference to Old English spelling, Allen's comments on the Latin spelling system cited earlier (at §3.2.2). His comments may be illustrated thus: <uictum> 'in order to conquer' is the Supine of Conjugation Class 3 Verb *uincō*. It is identical in spelling to <uictum> 'in order to live', the Supine of another Conjugation 3 Verb *vīvō*. Yet the vowel in the latter form was a long one (length macrons in the forms given are editorial) and the two forms are a minimal pair showing that length (at least for this vowel [i]) was

phonemic. The lack of distinction between consonantal and vocalic *i* and *u* is evident from spelling forms like -

(55)



The Principles given thus far seem to account for the general approach of scribes to the spelling of Old English in all dialects and at any given time, so far as this can be gauged from the evidence of surviving manuscripts. These Principles seem to capture and describe the basic elements and the interlocking of them which make up the underlying framework of Old English orthography and orthographic procedure. But Old English phonology was not static within time or over time or across geographical boundaries and although, as has emerged (cf. Principle 2), the phonological and orthographic systems of Old English did apparently to some extent function independently of each other[19], the evidence presented up until now has established that Old English orthography did largely correlate in several systematic ways with Old English phonology. Some synchronic, diachronic and diatopic variation in the orthography, corresponding to that in the phonology can therefore be assumed and must now be accommodated in the Taxonomy.

SECONDARY SYNCHRONIC PRINCIPLES SUPER-IMPOSED UPON THE FRAMEWORK OF THE PRIMARY SYNCHRONIC ORTHOGRAPHIC SYSTEM OF OLD ENGLISH

3.4.4 *Synchronic Non-diatopic Variation*

7. Variation in Synchronic Graphic Representation signals various Kinds of Corresponding Synchronic Phonological Variation

This can be gathered from the evidence of the following variant spellings of the same lexical item, or of semantically-related lexical items, in Old English:

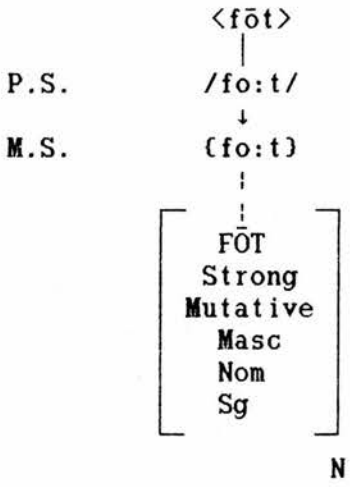
(a) ⟨fōt⟩ and ⟨fēt⟩ are word forms of the same Strong Masculine Mutative Noun 'foot'. The different vowel graph spellings in each form signal two correspondingly-different vocalic segments: ⟨ō⟩:[o:] occurs in the Nominative and Accusative Singular (these had in Proto Old English the inflectional suffixes (s) and (um) respectively - see Campbell 1959: §§620-621); ⟨ē⟩:[e:] occurs in the Dative Singular and Nominative/Accusative Plural and was the synchronic output of *i*-umlaut which mutated Pre OE [o:] to [ø:] /-$[i] (the Proto Old English inflectional suffixes were, for Dative Singular [i] and for Nominative/Accusative Plural [iz] - see the paragraphs just cited in Campbell) and later apparently unrounded to [e:]:⟨ē⟩ (though not in Anglian, cf. Campbell 1959: §198).

Not only does this synchronic spelling variation signal synchronic phonological variation, it also carries inflectional morphological information. The differing vowel graphs represent the realisations of the morphemes which express the inflectional morphological categories *case* and *number* (these realisations are, for the purposes of morphological explication, given phonemic representation: see the description of notation, etc. given earlier in this Chapter and see also Matthews 1974

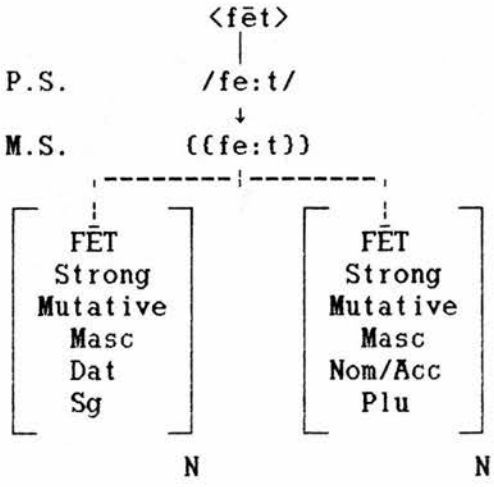
and Plank 1986). Thus /o:/:<ō> is the exponent (by syncretism and cumulation) of the terms *Nominative Singular* and *Accusative Singular* in the unmodified Root (Stem) {fo:t}. /e:/:<ē> is the exponent also by syncretism and cumulation) in the Modified Root ({fe:t}) of the terms *Dative Singular* and *Nominative Plural* and *Accusative Plural.* All of this information may be more simply and economically represented diagrammatically like this:

(56)

(a)



(b)



The <o> ~ <e> orthographic variation in this lexical item concomitantly provides evidence of a further kind of phonological variation. it involves neutralisation of the contrast between the Root

vowel phonemes /o:/ and /e:/ and subsequent change in the descriptive status of these segments within the *fōt* paradigm, but affects these vowels only when they are the sole exponents of inflectional morphological information, i.e., when they occur in simplex Stems consisting only of *Root*. The vowel [o:]:<ō> in the Genitive Singular word form *fōtes*, for example, would not participate in the neutralisation because it is a complex Stem (*Root* + *Suffix*) and the terms *Genitive* and *Singular* of the inflectional categories *Case* and *Number* are expressed not by the quality of the Root vowel as in a simplex Stem like either *foot* or *fēt*, but by the addition of the inflectional suffix (əs):<es>. But unlike the two kinds of neutralisation usually posited for Old English, i.e., either phonologically-conditioned or morphophonologically-conditioned (these will be exemplified below), the neutralisation in this paradigm - or in any other of a Mutative Declension or Conjugation Class in which differing Root vowel phonemes act as the sole exponents of inflectional morphological information - is morphologically-conditioned. In this instance, the appearance of either one or the other of the two differing vowel qualities is governed by the synchronic morphological function of the Root vowel as sole exponent of different terms of the morphological categories *Case* and *Number*. Adapting the terminology and notation of phonologically-conditioned neutralisation invoked earlier at §3.2.2.1 and those of morphology (see again Colman 1985b, Matthews 1974 and Lass 1984a: Ch. 3), the unmodified Root vowel quality, since it predominates in the *fōt* paradigm, could be posited and described (though perhaps rather clumsily) as an *archimorphophoneme* (/O:/), whose *archiallomorphophones* ([o:]) and ([e:]) appear //f-t/, as the products of neutralisation of /o:/ and /e:/, according to the terms to

be expressed: {[o:]} when *Nominative* or *Accusative* + *Singular* are to be expressed and {[e:]} when either *Dative* + *Singular* or *Nominative* or *Accusative* + *Plural* are to be expressed. This, then, increases to three the kinds of neutralisation of contrast between phonemes which can be assumed to have been operative in Old English:

(1) Phonologically-conditioned such as that described earlier at §3.2.2.1 where the contrast between /f/ and /b/ is suspended in word-medial and word-final positions (at least in early Old English) and realised instead in word-medial position as [[v]] , in word-final position as [[f]] - both alloarchiphones of the archiphoneme //V// produced by the suspension.

(2) Morphophonologically-conditioned, as exemplified in the allomorphy of the expression of III Singular Preterite Indicative in Weak Verbs where the morphophoneme {T} is variably realised and predictable according to the nature of the preceding segment. So:

(56)

	------→	ø /CC-	e.g. *fæste* 'fastened'	
			P.S.	/fæstə/
				↓
			M.S.	{fæst}{T}{ə}
{T}	------→	[d] /[+ voice]-	e.g. *fērde* 'travelled'	
			P.S.	/fe:rd /
				↓
			M.S.	{fe:r}{T}{ə}
	------→	[t] /[- voice]-	e.g. *mētte* 'met'	
			P.S.	/me:ttə/
				↓
			M.S.	{me:t}{T}{ə}

(3) Morphologically-conditioned, as seen in the alloarchimorphic expression of *Case* and *Number* in Mutative Nouns where the archimorphophoneme (/O:/) is variably and predictably realised according to the inflectional morphology terms being expressed, so:

(57)

(/O:/)

([e:]) / [Dat Sg / (Nom) Plu / (Acc)] e.g. *fēt*

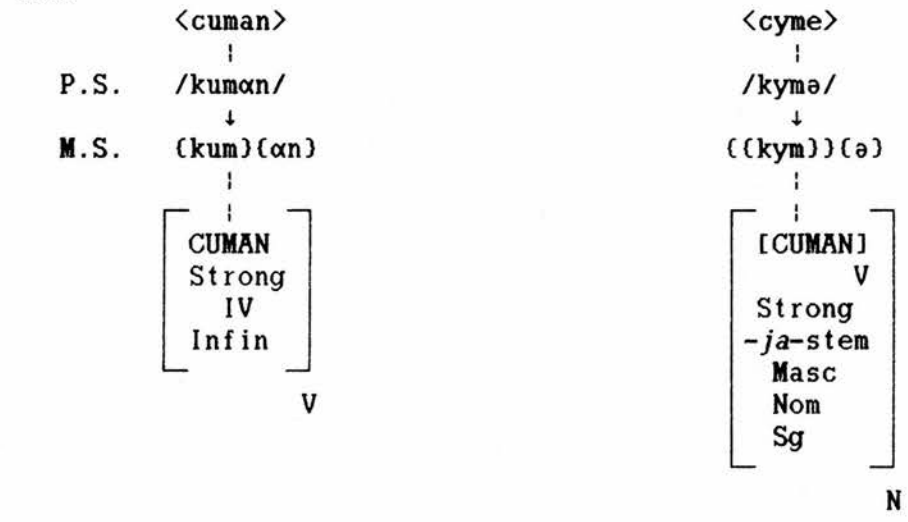
([o:]) / [(Nom) Sg / (Acc)] e.g. *fōt*

The orthographic variation seen in <fōt> cf. <fēt> then expresses phonological variation which in turn is conditioned by the synchronic morphological function of the word forms within the same paradigm. <fōt> and <fēt>, as a result of this orthographic variation, can be recognised as different grammatical forms of the same lexeme.

(b) As with these word forms, the synchronic orthographic variation seen in the representation of the Root vowel in, for instance, the Verb *cuman* 'to come', when compared with that of the Root vowel in the semantically-related Noun *cyme* 'arrival', provides evidence of synchronic phonological variety in vowel quality (for lexemic information, see the word structures given below): <y> represents [y], the output of *i*-umlaut of Pre OE [u] /-$[jα], while <u> indicates [u], also the reflex of Pre OE [u], but unmutated because of the lack of the relevant conditioning context at the time of the operation of *i*-umlaut.

Apart from this evidence of two different vowel qualities, the use of two different vowel graphs in the Roots of these forms carries the derivational morphological information anticipated above (for an introduction to the theory of derivational morphology, especially in relation to Modern English, see L. Bauer 1983, in addition to the works already mentioned at (a) above). A comparison of the phonological, morphological and word structures of both lexical items, as set out below, will make plain the semantic relations and the major word-class distinctions between them:

(58)



Discussion of these four forms has revealed therefore that synchronic orthographic variation signals the existence of corresponding synchronic phonological variety with regard to segment quality - (a) and (b) - and, through this, realises and indicates synchronic morphological inflectional categories and their terms - (a). It also expresses and permits identification of major word-classes which in turn allows semantic relationships to be established - (b). Thirdly, it provides evidence of morphophonologically-conditioned phonological neutralisation of phonemic contrasts - (a).

(c) Finally, evidence of synchronic phonological variation of a kind other than that discussed in (a) and (b) is provided by synchronic variation in the spelling of the same word form of an individual lexeme. The pre-10th-century orthographic representation of the lexeme *man* (a Strong Masculine Mutative Noun meaning 'man/person'; also used in this Nominative Singular form as an Indefinite or Impersonal Pronoun: 'one/they') or *hand* (Strong Feminine *-u*-stem Noun meaning 'hand') are cases in point. These forms and other data exhibiting this type of spelling variation is discussed at length in King (in press: *passim*), especially with reference to Toon's (1983) treatment and interpretation of such data (on this, see further Hogg's (1985) *Review* of Toon, especially pp. 247-248).

3.4.5 *Synchronic Diatopic Variation*

8. Diatopic Differences in Graphic Representation may indicate Corresponding Phonological Differences

This is exemplified in the appearance of ⟨æ⟩:[æ] in texts traditionally classified as West Saxon, but ⟨e⟩:[e:] in texts traditionally described as Kentish, Mercian and Northumbrian, to represent the Old English reflex of Proto Gmc [æ:] (or [a:], commonly referred to as $\bar{æ}^1$, cf. e.g., Campbell 1959: §128, fn. 1; p. 51, fn. 1; §257). An alternative grouping of ⟨æ⟩ spellings with Kentish, as well as West Saxon, and ⟨e⟩ spellings with Mercian and Northumbrian only is proposed by Hogg (1988), whose arguments are convincing. Regardless however, of whether or not Kentish is aligned with West Saxon as an $\bar{æ}^1$ dialect, the fact remains that the diatopic graphic differences arising from the use of ⟨æ⟩ in one dialect (or two) and ⟨e⟩ in the other three (or two) dialects represents corresponding phonological differences.

9. Diatopic Differences in Graphic Representation need not indicate Corresponding, or any, Phonological Differences

The use of ⟨u(u)⟩ in Northumbrian manuscripts, synchronic with the use of *wynn* in those written in other dialect areas, to represent the same consonantal segment [w] may be cited as illustrating this Principle (see again the elaboration on this topic at §2.3.3.3 above).

SECONDARY DIACHRONIC PRINCIPLES SUPERIMPOSED UPON THE FRAMEWORK OF THE PRIMARY SYNCHRONIC ORTHOGRAPHIC SYSTEM OF OLD ENGLISH

3.4.6 *Diachronic Graphic Variation and its Correlation with Diachronic Phonological Variation*

10. A Change in Graphic Representation may signal a Corresponding Phonological Change

Consider, for instance, the following sets of words which show stressed vowel graph variation:

(a) IL ⟨oleum⟩:[oljum] 'oil' which, after being borrowed into (Pre) Old English and classified as a Strong Masculine *-i*-stem Noun, appears in Nominative Singular form in Early Old English texts as ⟨oele⟩ and, in later texts as ⟨ele⟩;

(b) Old English Weak Class 1 Verb ⟨dēman⟩ 'to judge', compared with its Gothic cognate ⟨dōmjan⟩ (length marks are, as usual, editorial) and the early Old English form ⟨dōēm-⟩;

(c) 'Early' West Saxon ⟨mieht⟩ 'might/power' (Nominative Singular form of a Strong Feminine *-i*-stem Noun), compared with 'late' West Saxon ⟨miht⟩.

These instances of diachronic graphic variation in Old English, *viz.*:

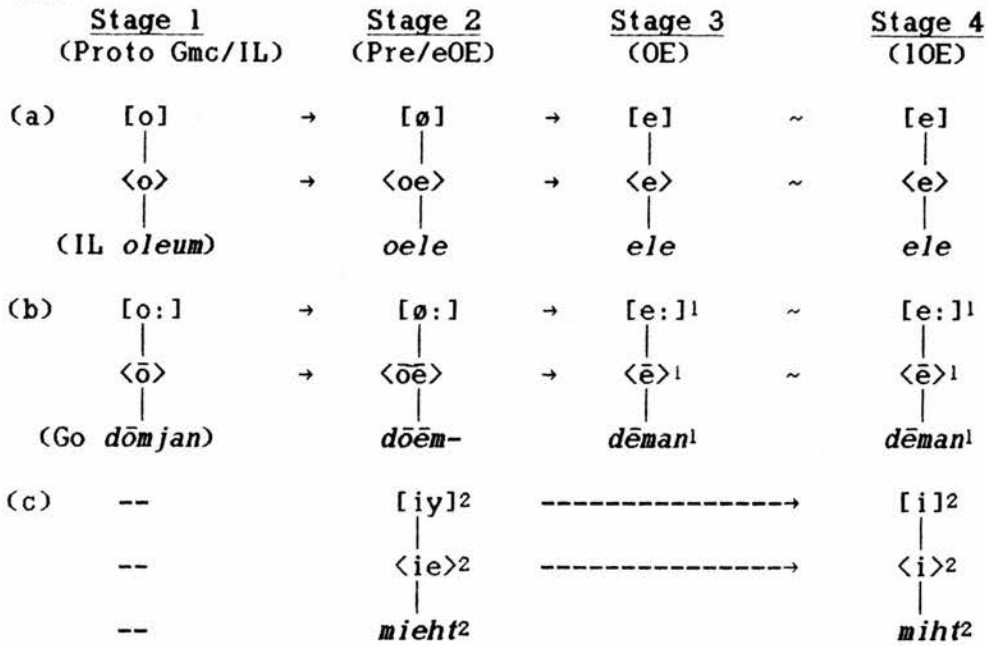
(a) that seen in comparative, though non-Germanic-cognate, forms of the same word;

(b) that seen in comparative Germanic cognate forms of the same word; and

(c) that seen in earlier and later Old English forms of the same word, provide spelling evidence to show that, and how, Root vowel modification was brough about by the following phonological changes in Pre Old English and Old English. In (a), *i*-umlaut caused mutation of IL/Pre OE [o] (preserved in the <o> graph of the Imperial Latin form) → [ø] /-$[j]; [ø] then unrounded to [e] (cf. Campbell 1959: §196). In (b), the Proto Gmc Root vowel [o:] (indicated by the <o> graph of the Gothic form) develops in Pre Old English to [ø:] as a result of *i*-umlaut /-$[j]; [ø:] then unrounds (except in Anglian dialects) to [e:] (cf. Campbell 1959: §198). The forms cited at (c) have chronologically-differing Root vowels because of the 'late' West Saxon monophthongisation to [i] /-C [+ palatal] of the diphthong [iy] (more traditionally, [iə] - for the [iy] value for the digraph <ie>, see Colman 1985a: §3; for the monophthongisation, see Campbell 1959: §§301, 316); the diphthong is itself a modification of a previous diphthong [æɑ] ← [æ] (by Breaking /-[x] + C ([t]) ← Pre OE [a] (by First Fronting).

The diachronic changes in graphic representation which signal the corresponding diachronic phonological changes just described may be set out clearly in tabular form for (a), (b) and (c) as follows:

(59)



1 Non-Anglian dialects only;

2 West Saxon only; for [iy], [iə] may be substituted (see main text).

11. A Diachronic Alteration in Graphic Representation does not invariably signal a Corresponding, or any, Phonological Change

This is exemplified by the replacement generally in Old English of the early trigraph sequence <aea>, e.g., *aeata*, a hypocoristic personal name related to the abstract common Noun *ēad* 'happiness/prosperity', recorded in the Moore MS. of Bede's *Historia Ecclesiastica* (c. 737), cf. Campbell (1959: §§275; 135); Ström (1939: §11.1) or O. Anderson (1941: 103) - according to Ström (§31) and O. Anderson (p. 122), the <t> of the name *aeata* represents [t] derived by regressive assimilation of element-final voiced [d] of the proto-theme (first element of a compound name) with the initial voiceless consonant of a postulated, but not specified, deuterotheme (second element of a compound name).

<aea> spellings were later superseded by the digraph <ea>. The name just cited, for instance, appears in the *Genealogies* (Cotton MS. Vespasian B VI, ff. 108 ff.) dated c. 811-814, referring to the same

Bishop of Hexham (c. 768) and Lindisfarne (c. 681) *aeata*, but spelt with <ea> - <eata> (cf. Sweet 1885: 167). The superseding of <aea> trigraph spellings by <ea> digraph spellings seems not to have been the reflection of any phonological development - both graphic sequences apparently represent [æ(:)ɑ̯] - but belonged solely to the level of orthography. Change in spelling in this case may be very probably ascribed to a graphotactic constraint on trigraphic sequences after the time of the earliest Old English manuscripts (cf. Lass and Anderson 1975: 280, who follow Stockwell and Barritt 1951: 16, and King 1988: §4.3.1.2).

12. **The Absence of Diachronic Alteration in Graphic Representation does not necessarily signify Absence of Phonological Change**

This Principle may be illustrated by reference to the continuous Old English scribal use of the graphs <c> and <ȝ>, alone or in collocation with other graphs, to represent the various diachronic reflexes of Gmc [k] and [γ] in Old English. This usage has been discussed at length previously - consult again §§2.4 - 2.4.3.3 above.

3.5 *THE PRINCIPLES MAKING UP THE PROPOSED TAXONOMY OF OLD ENGLISH SPELLING IN TERMS OF ITS RELATIONSHIP TO OLD ENGLISH PHONOLOGY ENUMERATED:*

1. Each Old English graph in general represents a sound-segment.
2. Each Old English graph need not represent a sound-segment.
3. Each graphic difference commonly represents one between contrastive sound-units in Old English.
4. A graphic difference does not invariably represent one between contrastive sound-units in Old English.
5. Contrastive sound-units are generally accorded distinctive graphic representation in Old English.

6. Contrastive sound-units belonging to, or operative at, more than one phonological level are not always given correspondingly-contrastive graphic representation.

7. Variation in synchronic graphic representation signals various kinds of corresponding synchronic phonological variation.

8. Diatopic differences in graphic representation may indicate corresponding phonological differences.

9. Diatopic differences in graphic representation need not indicate corresponding, or any, phonological differences.

10. A change in graphic representation may signal a corresponding phonological change.

11. A diachronic alteration in graphic representation does not invariably signal a corresponding, or any, phonological change.

12. The absence of diachronic alteration in graphic representation does not necessarily signify absence of phonological change.

CHAPTER 4:

BACKGROUND

4.1 *AXIOMS*

Now that the principles and procedures of Old English orthography have been described and discussed at some length, it seems appropriate - perhaps even long overdue! - to look, in detail, at the background to the origins and development of the spelling system used by the Anglo-Saxons for writing Old English.

One of the truisms of Old English studies is that Old English was written in the Roman-letter alphabet supplemented by the addition of runes from the native, Germanic *fuþark*. Scholars of Old English usually also mention some kind of Celtic influence on the process of modifying this alphabet for use in writing Old English (though they tend to disagree on both the kind and degree of influence). The following quotations give a flavour of the prevailing orthodoxy:

> The Anglo-Saxons brought with them to England their national runic alphabet. On their conversion to christianity [sic] they adopted the Latin alphabet in its British form. At first the Latin and the Runic alphabet continued to be used side by side .... without influencing one another. .... it is not till the 9th century that [*u(u)* and *th*] are generally superseded by ƿ and þ of the Runic alphabet.
>
> *(Sweet 1888: §352)*

> OE. was written in the British modified form of the Latin alphabet with the addition of þ and ƿ .... from the runic alphabet.
>
> *(Wright and Wright 1925: §4)*

> Old English is written by contemporary scribes in the Latin alphabet. [and]
> The model for this system [of consonant spellings] was clearly the Latin one as preserved in grammatical tradition. The use of *th* and *ch* .... appears, however, to have been suggested by O[ld] Ir[ish] spelling.
>
> *(Campbell 1959: §§23, 55)*

> OE orthography .... derived directly from Irish traditions, and only indirectly from their source in the writing of Latin .... .
>
> *(Strang 1970: §195)*

> The history of English orthography begins .... when Roman and Irish missionaries converted the Anglo-Saxons to Christianity and introduced them to the roman alphabet .... at the end of the sixth century. .... two runes were adapted to supplement the roman alphabet as used in England .... .
>
> *(Scragg 1974: 1,2)*

> The first Anglo-Saxon writing .... was introduced by Irish missionaries, who supplemented their Irish Latin form of alphabet in various ways: they used two of the old runes .... þ and ƿ .... .
>
> *(Wakelin 1988: §1.4)*

But, of course, an alphabet, like many other things, is only what you make of it and scribes of Old English rose magnificently to the challenge in two ways - they learnt how to use the Roman-letter alphabet in a spelling system for writing, first-of-all, Latin and then, having done this, they adapted both for the purposes of writing Old English. Exactly how they went about these two tasks in practical terms - and what the implications and results of this are for Old English spelling practice - are questions rarely, if at all, addressed by scholars of Old English, as the quotations - which are representative - cited above show. At the risk of continuing the tradition of axiom just illustrated, it seems appropriate here to reiterate the point that we rely almost entirely on the testimony of the spelling found in contemporary Old English records for any knowledge we have, or can infer, about Old English phonology. Given this, the existence of several chinks in the traditional armour of description of the origins and development of the Old English spelling system renders it vulnerable. Statements in this tradition have assumed axiomatic status in the sense that they are accepted as 'self-evident proposition[s], not requiring demonstration'

(*Oxford English Dictionary*). Several questions, however, are begged by the statements quoted above, for instance:

a. What do the terms "Latin", Irish" and "British" signify?

b. Were "Latin", "Irish" and "British" relevant to the eventual writing-down of Old English?

c. In the context of the origins of the Early Old English spelling system, how were these languages relevant?

d. What was the "grammatical tradition", apparently familiar to the Anglo-Saxons, in which this "Latin model" was "preserved"? (see further Ch. 4 below);

e. What was the "Latin model" for the Old English system of consonant spelling referred to by Campbell? (cf. §5.2.3 below)

f. What does Strang mean by "Irish traditions" of orthography? (cf. §5.3 ff. below);

g. What was the "Irish Latin form of alphabet"? (cf. §5.3 ff. below);

The insistence of unanswered questions like these arising from the "propositions" made as a matter of course on the origins and development of the Old English spelling system indicates that they are not "self-evident" - they do "requir[e] demonstration" since they are the *sine qua non* of Old English spelling studies.

4.2 *BACK TO BASICS*

4.2.1 *What do the Terms "Latin", "Irish" and "British" signify?*

In the context of the origins of the Early Old English spelling system, these labels can be taken, to mean 'the language spoken and written by, respectively, native Roman, Irish and British speakers during the period when the Anglo-Saxons were converted to Christianity'. To anticipate

§4.2.2 a little, Anglo-Saxon literacy in Latin was required before a spelling system for Old English could be devised. This literacy was acquired as a result of the conversion. The time span of the acquisition of literacy therefore coincided roughly with that of the conversion (on which, see §4.3.1 below). In accordance with this chronology and in the light of evidence on language contact which will be presented later, each of the three language labels can now be defined precisely (in contrast to the lax usage evident in the quotations cited in §4.1) -

Latin: the spoken language native to Rome and Gaul in the relevant period between c. the late 5th and late 8th centuries, i.e., *Early Romance* (cf. §3.4.1, Principle 2 above and also §5.2.1 ff. below);

the written language of Rome and Gaul of the same period, i.e., *Late Latin* (cf. §3.4.1., etc. as above).

These labels, and the accompanying dating, follow broadly the usage of Wright (1982: Ch. 2 and personal communications), but diverge from his labelling at points - especially in the matter of spoken *versus* written Latin in this period; he would use only the term *Early Romance* to cover both the spoken and written language. Only where there is no need, or evidence, for greater specificity, the term *Latin* will be used in this work. *Vulgar Latin* is a label much used in the field of Romance linguistics, but its definitions and usage are loose and vary enormously. Lloyd (1979), for example, lists thirteen different, often contradictory, meanings for it. He maintains because of this, that "the continued use

of 'Vulgar Latin' is .... a positive barrier to a clear understanding of the problems of the history of Latin and Romance [and that it] only obscure[s] these problems and give[s] .... a false notion of certainty" (p. 120). His conclusion (also p. 120) is that "the best solution is to abandon it altogether". This suggestion is sensible and the term *Vulgar Latin* will not, therefore, be used here except in direction quotations of original uses of it.

Irish: the spoken language native to Ireland in the relevant period between c. the beginning of the 7th century and the end of the 8th, i.e., *Early Old Irish* and the first half of the *Old Irish* period;

the written languages of Ireland of the same period, i.e., *Early Old Irish* and *Old Irish*, as well as *Late Latin* (which will be referred to as *Hiberno-Latin* to distinguish it from the *Late Latin* mentioned above). Where there is no need for precision in relation to either spoken or written Irish of this period in discussions which follow, the term *Irish* will be used.

The labels and dating here follow, primarily, those of Greene (1977) and McCone (1985: especially pp. 102-106), both of whom build on, but re-assess, the traditional view on these, as expressed by, for instance, Thurneysen (1980: §§1, 4-10).

British: the spoken languages native to Britain in the relevant period between c. the late 6th and late 7th centuries, i.e., *Primitive Welsh* and *Primitive Cornish; Cumbric* has not

been included here since Jackson (1954: 67) states that "it seems to have agreed with Welsh in the main";

the written language in the corresponding period was Latin. Welsh was not written until the 8th century and Cornish not until the ninth. For Cumbric, "there are virtually no written documents" (Jackson 1954: 68; and see further §4.2.2 below). Again, where specificity is not required, the term *British* will henceforward be used.

The labels and dating here follow Jackson (1953: 42-59) and (1954: 68, 80), as well as Price (1984a: Chs. 7 and 8).

4.2.2 *Were Latin, Irish and British relevant to the Eventual Writing-down of Old English?*

Obviously the Anglo-Saxons' acquiring literacy in Latin, (or, at the very least, becoming familiar with the letters of the Latin alphabet and learning how to use them in a written symbol ~ spoken sound relationship) was the all-important, initial step in their progress towards writing in their native language[20]. For any of these languages to have had any bearing on Anglo-Saxon literacy, some sort of prior contact between them and Old English must have occurred. Pre-Old English ↔ Primitive Cornish spoken contact can be assumed not to have occurred, or not, at least, to any significant extent, during the period of the conversion or even prior to this - Cornwall did not begin to become Anglo-Saxon territory until 815 and still retained some independence a century later, cf. Jackson (1953: 206) and Stenton (1971: 235). Not only is there no evidence that Anglo-Saxons were acquainted with any Latin written in Cornwall at the time of the conversion (see §4.5.1.1 below),

but the vernacular was not written down until the 9th century - too late to be of relevance to the Anglo-Saxons learning to read and write.

By contrast, there does seem to have been spoken contact between British/Primitive Welsh and Pre-Old English during the settlement period (the latter part of which, from c. 550 to c. 650, was simultaneous with the first part of the conversion). This is evidenced in the survival, beyond the Anglo-Saxon conquest, of many British place-names. Some of these were modified by contact with Old English, while others were not. The name evidence is described in Jackson (1953: Ch. VI and references therein). But, as Lass (1987: 43) points out, place-names "tend to remain stable under conquest [anyway]", so the extent and kind of direct language contact might be better measured by looking at loans from British/Primitive Welsh into Pre-Old English. There is only about a dozen of these, listed by Serjeantson (1935: 56-57). They include words like *bratt* 'cloak', *binn* 'manger' and topographic terms like *carr* 'rock' or *torr* 'peak'. From such evidence, Jackson (1953: 243-246) concludes that, though there was some bilingualism, it was probably on the part of the Celtic speakers, rather than the Germanic ones and did not last for long since the indigenous population was absorbed eventually into the Anglo-Saxon system of agriculture and society through inter-marriage or, in many instances, as slaves - see also Mayr-Harting (1972: 30-31, 49-56, 119). All-in-all, British/Primitive Welsh influence on Pre-Old English seems to have been slight and can, for present purposes be regarded as negligible since it is unlikely to have contributed in any way to Anglo-Saxons becoming literate (but see further §§4.5.1.1 and 4.5.1.2 below on British ↔ Anglo-Saxon contacts of a different kind). No contribution to Anglo-Saxon literacy could have been made either by access to the

process or practice of writing in the vernacular since, as was the case with Old Cornish, Old Welsh began to be written down too late for this (cf. §4.2.1 above). This question of date is crucial because it means that evidence of direct and indirect language contact between Welsh and Old English speakers such as Jackson's (1953: 59) report that Old Welsh names are found in Anglo-Saxon documents such as charters and the *Anglo-Saxon Chronicle*, is too late in occurrence to have played any part in the Anglo-Saxons learning to read or write. In support of this is Jackson's statement that these Welsh names "were clearly written down for the most part by an English scribe as he heard them pronounced, and not by the owners of the names themselves" (1953: 59). While, as Mayr-Harting (1972: 118-119) says, "[i]t is undoubtedly the case .... that Bede [in his *History of the English Church and people* and other works] minimized the benefit to the Anglo-Saxon churches [once they were established] of contacts with British christians and British churches", it is equally the case that the British Church, which apparently throve in the 5th and 6th centuries (cf. Mayr-Harting 1972: 32-39), played no discernible rôle in the conversion of the Anglo-Saxons to Christianity. Because of this, bearing in mind that literacy at this time was the province of the Church, it must be assumed that the Anglo-Saxons had no access to the Latin literacy of the British Church. It must be concluded from the foregoing then that 'British' was not relevant to the eventual writing-down of Old English. The position is different with Latin and Irish. Both languages were relevant in many ways to Old English's being reduced to writing, as will now be shown.

4.3 *CONVERSION TO CHRISTIANITY*

It will be useful here to give an *ad hoc* account of the progress of this event insofar as it throws light on questions of language contact between Old English and Latin or Irish, or both, and subsequent literacy among Old English speakers. More detailed treatments of the conversion can be found in: Sherley-Price's edition and translation of Bede's *Historia Ecclesiastica* (1968: *passim*); Stenton (1971: Ch. 4 and *passim*); Mayr-Harting (1972: esp. Part I); J. Campbell (1986: 49-84).

4.3.1 *Sequence of Events*

The conversion of the Anglo-Saxons to Christianity can, nominally, be said to have begun in 597 when a group of forty Roman missionaries, headed by Augustine and sent by Pope Gregory I, arrived on the island of Thanet and were given a church building, believed to have survived from Roman times, in Canterbury by King Æthelberht of Kent, as well as complete freedom to preach their Christian religion. In 601, Gregory sent a second mission, headed by Mellitus, to join Augustine. It is possible that the arrival of Augustine did not begin from scratch the process of the conversion of the English, or, alternatively, it is unlikely that the English were, before this date, unaware of the Christian religion. We know of contacts between pagan Anglo-Saxons and non-Anglo-Saxon Christians before 597. Probably the best-known example involves the Kentish king Æthelberht, who, some time before 588, had married a Frankish princess - Bertha - grand-daughter of Clovis and daughter of Charibert, King of Paris. Bertha was a Christian and had brought with her to Kent a Frankish bishop, Liudhard, "as her helper in the faith" (Sherley-Price 1968: 69). The native British inhabitants of England (especially in Northern England [Northumbria], Devon and

Cornwall), Wales and Scotland (particularly South of the Firth of Forth [again, part of the kingdom of Northumbria]) were, formally, Christian (and had been since the end of the 4th century- see de Paor (1984: 77) and undoubtedly they had contact in numerous ways with the Anglo-Saxons (cf. §4.2.2 above). Despite these factors, as stated earlier, there is little or no evidence of British missionaries attempting to convert the English. Anglo-Saxons cannot, however, have been ignorant of the Christian religion, or the religious practices, of the Britons. In addition to contact of this kind, or knowledge, or both, there are historical reports of Englishmen who, before the Roman mission reached Kent, were Christians - in *Adomnán's Life of Columba* (Anderson and Anderson, 1961), for instance, two such Englishmen, named Pilu and Genereus, were said to have been at Iona, the Irish Christian community founded in 565, before the death of Columba (he died in the same year that Augustine arrived in the South of England), see J. Campbell (1986: 67-70). Furthermore, archaeological evidence suggests direct contact between the diocese of Nantes, "where the first Saxons known to have become Christians anywhere were living", and Kent, c. 560 (cf. J. Campbell 1986: 54 and fn. 26; and, for further archaeological information, Mayr-Harting 1972: 19 and n. 12 esp., as well as Sawyer 1978: 82 and Whittock 1986: 226-230). North (1980: 14) describes Merovingian coins, part of *St. Martin's Treasure* and the *Crondall Hoard*, which date from the period c. 550 - 575 and which had come from Gaul into Southern and Eastern England. Between c. 575 and 600, coins based on Merovingian models and "often executed by Merovingian craftsmen" were apparently produced in England. Though it is very unlikely that these coins were generally circulated (they were probably kept as

bullion), this numismatic evidence further supports J. Campbell's (1986: 73) statement: "In England .... we should perhaps imagine a kind of proto-Christianity preceding the re-establishment of an organised Church. It is hard to disagree with this. However, since contacts of the kind just described do not seem to have resulted in the Anglo-Saxons gaining the ability to read and write, their importance, in the present context, lies mainly in their function as tokens of the events which followed. As Campbell goes on to say: "Whatever may have happened before 597 there can be no doubt that the series of royal conversions which began with Augustine's mission was of the utmost importance".

The timescale and geographical spread of the conversion, as well as the respective rôles played in it by native Early Romance speaking or native Early Old Irish speaking missionaries can be gauged roughly by looking at the following chart (Figure 61) which traces this "series of royal conversions" and its circumstances:

(61)

Prob. ***601*** King Æthelberht of ***Kent*** baptised (though cf. Mayr-Harting (1972: 63); previous to this, many Kentish people had apparently been converted and baptised.

604 Sabert, king of the ***East Saxons*** converted, due to the influence of King Æthelberht of Kent, and baptised by the Roman Archbishop Mellitus,
but see also the second entry below under 653.

627 King Edwin of ***Northumbria*** baptised, along with many of his people, by the Roman Bishop Paulinus, but cf. below on the need, after 633, for re-conversion by the Irish bishop, Aidán.

628 The people of ***Lindsey***, under King Edwin, are converted by Paulinus, but cf. below on the need, after 633, for re-conversion by the Irish bishop, Aidán.

630 Bishop Felix (a Burgundian) converted the kingdom of ***East Anglia***; its ruler, King Sigeberht had been exiled and converted in Gaul previous to this.

635 Cynegils, king of the ***West Saxons***, converted under Edwin of Northumbria's influence,

baptised by Birinus (he was consecrated in Milan between 630 and 640, but his nationality is unknown; he seems to have come directly from Rome just before 635).

653 Peada, who ruled the ***Middle Angles*** with his father's permission, baptised by the Irish Bishop Finan, Aidan's successor.

" The ***East Saxons***, had apostatised from Christianity in 616 when King Sabert died. His three sons, who inherited the kingdom, had not become Christian and they drove out the Roman bishop Mellitus when their father died. In 653, Sigbert, became king of the East Saxons. He was a friend of Oswy of Northumbria and due to his influence was converted and baptised by Bishop Finan. In answer to a request of King Sigbert's, Cedd (an Englishman trained at the Irish foundation, Lindisfarne) evangelised among the East Saxons with great success.

655 The ***Mercians*** became Christian after King Penda was killed.

Pre 672 The ***Hwicce*** converted. "The conversion of the Hwiccan kingdom is never clearly discussed by contemporary writers" (Hooke, 1985: 10). The date 672 is given here because it was in that year that Archbishop Theodore, as part of the diocesan re-organisation of the English church, granted the Hwicce a diocese of their own for the first time - they had been converted at some point before this, possibly as a result of the work of Oftfor, an Englishman trained in the Irish tradition at Whitby and, later, in the Roman one at Canterbury.

By 685 The ***South Saxons*** had been converted by Wilfrid, the English (Arch-)bishop who had been influenced by both the Roman and Irish traditions of Christianity. Their king, Æthelwalh, had become Christian about five years before this.

686 The inhabitants of the ***Isle of Wight***, under the newly-grasped kingship of Cadwalla, were converted, nominally by Wilfrid, but in reality by Beornwine, his sister's son, and a priest named Hiddila. This was the last Anglo-Saxon kingdom to become Christian.

There were several hiccoughs in this apparently smooth transition from paganism to Christianity, however. The Roman mission, more often than not, suffered various setbacks, notably the one to the Northumbrians. King Edwin was killed in 633 and his kingdom was

devastated by Penda and Cadwalla with many of its population being slaughtered and affairs in Northumbria being thrown into complete disorder. Because of this, Bishop Paulinus, Queen Æthelburh (Edwin of Kent's Christian daughter) and her children fled to the safety of Kent. Although a deacon, James, stayed behind in York and tried to carry on proselytising, all three of Edwin's shortlived successors reverted to paganism and the Roman mission in Northumbria effectively collapsed. The next year, Oswald, who had been in exile among, and been educated by, the Irish in Ireland and on Iona, succeeded to the throne and requested help from Iona in restoring Christianity to Northumbria. Bishop Aidán was sent, accompanied by some monks, and from the base they established on Lindisfarne, they travelled about on foot preaching and (re-)converting with great success. (See Sherley-Price, Stenton and Mayr-Harting, cited earlier in §4.3, for other instances of setbacks elsewhere, e.g., those that occurred on the deaths of King Æthelberht of Kent and King Sabert of the East Saxons). Moreover, the case of Æthelwalh, king of the South Saxons, shows that even though a king had been converted, the people of his kingdom did not necessarily follow his lead at the time, or even at all - recall Sabert's conversion in 604.

Although, by and large, England can be said to have become Christian by the end of the 7th century - the work, as can be seen from the chart above, predominantly of Irish missionaries, or those trained by Irishmen - the transition overall from pagan to Christian beliefs must have taken several more generations. The archaeological evidence of 7th and 8th century Anglo-Saxon cemeteries suggests that this was what happened. The pagan custom of depositing grave-goods with the dead did not cease, apparently, until about the middle of the 8th century, at

which time, in addition, cemeteries were generally moved from their earlier sites near pagan cemeteries to sites beside churches (cf. J. Campbell 1986: 79-80).

4.4 *ANGLO-SAXON LITERACY*

The fact that the conversion had been carried out by men who were literate in Latin was one of the most important factors in the introduction of literacy. Kings and their courts were not slow to see, and make the most of, the obvious benefits that the help and skills of these men could make available to them. As a result, administrative documents like law codes, charters (initially only royal grants of land to the Church for the founding of monasteries, but later this facility was extended to noblemen), letters, the *Tribal Hideage*, and trade papers began to be produced from the late 6th/early 7th century onwards, as well as records advantageous to rulers in other ways, such as annals, histories, *Liber Vitæ* and royal genealogies and lists of kings (cf. §4.4.2 below).

Also significant in the establishment of literacy was the building of churches and monasteries in the wake of the conversion. A fair number of churches was built during the 7th and early 8th centuries. Sometimes these were the churches of small family monasteries which also served as places of worship for people in the locality. At other times, however, local churches were merely oratories for the use of one of the king's followers and his family, as well as the tenants of his estate. Places of worship were sometimes nothing other than a site marked by a cross. However, as far as the acquiring of literacy is concerned, it is only monasteries and certain types of churches that are of interest because their inmates or users could be expected to have needed to read

and write - whether or not in scriptoria set aside specially for that purpose (in Irish monasteries, monks wrote in their cells, for instance, when no scriptorium was available) - and would therefore have had to learn reading and writing. Churches built by kings near the halls on their estates, for instance, fall into this category - they were centres of missionary and pastoral activity and they had administrative districts attached to them for such purposes as tax payment. So do most family monasteries (originally secular estates, but turned into monasteries by members of families who became monks and nuns: the Wearmouth monastery and those of Gilling, Lastingham and Iona were, to begin with, such establishments). Many of the smaller of these monasteries were intended by their royal or noble founders as a home for their widows and as a place of education for their children, apart from any ecclesiastical functions they may have had. This kind of monastery would, therefore have had a scriptorium for the production of charters and those books necessary to education, prayer and worship.

Monasteries set up in response to the needs of Anglo-Saxons in the locality, either recently-converted or still unconverted, are of the first importance in the establishment and spread of literacy in England. Examples include those at Reculver, Lyminge, Dover, Malmesbury, Medeshamstede [Peterborough], Cnobheresburh [Burgh Castle] and Lindisfarne, all founded in the 7th century (the first three under Roman auspices and the four last by Irish clergy - for a listing of the Roman-influenced ones, see Whitelock 1955: 82-83 and Deanesly 1961: 203-207; for a list of Irish-founded monasteries, see Dunleavy 1960: 20-25). The process of establishing literacy was begun almost as soon as monasteries were founded, the taking in and education for monkhood of English boys

being one of the first tasks the founders undertook, as in the case of Aidán who, when he first became Bishop of Lindisfarne, received twelve English boys, including Eata (who later became Abbot of Melrose), to be "taught the Christian faith" (Sherley-Price 1968: 193), or that of Bede himself who, at the age of seven, in 679 or 680, was given to Benedict Biscop to be educated at Wearmouth (see also Blair 1976: 152-153). Teaching "the Christian faith" was concomitant with teaching Latin - the universal language of that faith. Monastery schools were opened for this purpose, like that of Theodore and Hadrian at Canterbury in 669, or the one set up before their arrival by Sigeberht, king of East Anglia when he returned from Gaul specifically for "the education of boys in the study of letters" (Sherley-Price 1968: 170). For this he had the help of Bishop Felix and some teachers from Canterbury. Other examples are the one housed in the monastery at Whitby, founded by Abbess Hilda and run according to Irish traditions, the school founded at Winchester in 648, that at York in 665 and the one at Worcester in 685.

The practice of inter-monastery lending of books and manuscripts, whether written abroad in Rome, Gaul or Ireland, or at home in the lending monastery, was instrumental in disseminating literacy. Contacts like this are known to have existed between Jarrow and Lindisfarne and *vice versa*; between Ripon and Wearmouth-Jarrow, Hexham and Wearmouth-Jarrow and Wearmouth-Jarrow and Canterbury, as well as between Lindisfarne and Whitby (cf. Mayr-Harting 1972: 164-167).

Literacy, and traditions of literacy, were also spread by the movement of ecclesiastical personnel between monasteries. Five of the monks trained in the Irish-influenced traditions of Whitby exemplify this very well. Bosa became Bishop of York, Aetla of Dorchester, John of Hexham

and Wilfrid of Ripon (and elsewhere in his varied and irregular career). The fifth, Oftfor, travelled to Canterbury to study with Archbishop Theodore, before travelling to Rome and, on his return, evangelising among, and then becoming Bishop of, the Hwicce. Aldhelm, a member of the royal house of Wessex who was born c. 639, is another, outstanding, example. He was first educated by the Irish at Malmesbury and then at Canterbury in the time of Theodore. He was then appointed Bishop of Sherborne in Wessex and, finally, moved to the diocese of Winchester with its famous school.

The great attention and importance attached by Bede to the outcome of the Synod of Whitby (664) has tended to obscure the fact that in the matter of the Anglo-Saxons becoming literate, there was a large amount of Early Old Irish and Late Latin/Early Romance cross-fertilisation. Whitelock (1955: 84) agrees: "[n]o fast line should be drawn between the[se two] spheres of influence". As J. Campbell (1986: 64) says: "England came under Irish influences not only directly, but indirectly, via Gaul. It came under Italian influence not only directly, but indirectly via the Irish". This has already been hinted at in some of the information just given, but full and more details should be sought in Campbell (1986: 49-67) and Whitelock (1955: 84-85). This cross-fertilisation has possible repercussions for the eventual writing of Old English (on which cf. Ch. 5 below).

4.4.1 *Literacy*

A description of the term *literacy* is probably in order at this point. In *Chambers English Dictionary*, it is defined as 'condition of being literate', i.e., 'able to read and write'. It is probable, however, that this term, in relation to knowledge of Latin generally among Anglo-Saxon

ecclesiastics, should not be used so inclusively. Bede does speak of individuals to whom the description *literate*, as just defined, could be applied. One such is Tobias, who had studied under Archbishop Theodore and Abbot Hadrian at Canterbury, and who became Bishop of Rochester in the early 8th century. He is characterised by Bede as "a scholar of Latin, Greek and Saxon" and as understanding "the Greek and Latin languages so thoroughly that they were as familiar to him as his own native tongue" (Sherley-Price 1968: 282, 330). On the other hand, Bede also tells (Sherley-Price 1968: 250-253) of the monk Caedmon, from the Whitby monastery, who seems to have known no Latin and/or been unable to read for he had to have passages of the Bible "explained to him by interpreters" which he then "quickly turn[ed] .... into delightful and moving poetry in his own English tongue" (see also Blair's 1976: 121 account. It is likely that between these two extremes, several differing levels of literacy in Latin existed amongst trainee- and fully-fledged monks and priests in monasteries. These could reasonably be categorised as follows:

Having the ability to -

1. read aloud, without necessarily understanding what is being read (on reading aloud, rather than silent reading, see Blair 1976: 159-160 in which Bede is quoted and the relative importance within the Church hierarchy of the office of *lector*);
2. read aloud and understand what is being read;
3. write, in the sense of copying, without necessarily understanding what is being written;
4. write and understand what is being written;
5. write, with understanding, from dictation (cf. Sherley-Price, 1968: 300).

Regrettably, we do not know exactly how literacy teaching was undertaken in Anglo-Saxon monasteries, though we can make reasonably well-informed judgments (see further §5.1 ff. below), but these

categories of literacy just proposed seem judicious in the light of evidence available on the methods of teaching Latin to novice clergy in the Carolingian Empire. This was done according to a tradition instituted during the Carolingian reforms of the Church in Gaul in the 8th century, in which the Englishman Alcuin played a leading rôle. He had been a pupil of the school at York, which by the early to mid 8th century had become, under Bishop Egbert, the leading Anglo-Saxon educational establishment - in which reading, singing, writing, grammar and some kind of numeracy were taught (cf. Blair 1976: 154). It seems fairly safe to assume that the teaching methods introduced by him in Gaul were those familiar to him from York. Of these Gaulish teaching methods and their results, Wright (1982: 117; emphases mine) has this to say:

> The alphabet was an early lesson. It was taught so that the pupils could read aloud; not so that they could write, nor so that they could understand a text, but so that they could recite. .... The initial grammatical primer was Donatus's *Ars Minor*. The teaching was almost all oral in nature, either by recitation of passages or mnemonics or through established question and answer routines; for trainee priests or monks this included the techniques of church recitation. **Writing was usually only learnt by [some pupils] at a later stage. There were thus many who had learnt to read only, or had taken a short cut by learning by heart selected passages for recitation parrot-fashion, with no ability to write** ... .

The ability to write is normally acquired after the ability to read. The highest standard of Anglo-Saxon literacy in Latin then, would be a combination of 2. and 5. above. This conclusion is backed up by, for instance, the story, repeated in Blair (1976: 154-155) of a fourteen-year-old boy who became eventually Abbot of Utrecht:

> Boniface once asked him to read a passage from a book. He did so, but when Boniface asked him to explain the passage, he began to read it afresh from the beginning, and when Boniface interrupted, the unhappy lad had to admit that he was quite unable to

> explain in his own language the meaning of the Latin words he had been reading.

From the evidence of surviving, contemporary documents, it is usually concluded that literacy was confined to church personnel in Anglo-Saxon England in the period under scrutiny here, so much so that we are, as Hill (1984: 23) very neatly puts it, "in danger of seeing Anglo-Saxon England through stained glass windows". A slight corrective to this view is provided by information from Bede's *History of the English Church and people* to the effect that kings were sometimes literate. Aldfrid of Northumbria, for instance, is described as "a man well-read in the Scriptures" (Sherley-Price 1968: 258). He was able also, according to Strang (1970: §196), to write "verse in Gaelic [*sic* - Early Old Irish?] and scholarly letters in Latin". Nobles and "lesser folk", Bede says, went to Ireland "to pursue religious studies" (p. 195), so some level of literacy (probably up to point 2) on the part of some of the nobility, can be supposed. Though it is not clear what Bede means by the expression "lesser folk", it would be unwise to conjecture that members of social classes below the nobility were literate at all. Wormald (1977: 102-105, 113) stresses the newness in the time of King Alfred of the idea of lay literacy. Mayr-Harting (1972: 243) refers to Bede's letter to Archbishop Egbert in which he says that every Christian should recite the *Our Father* and the *Apostles' Creed* daily. "[T]he laity would have to recite them not in Latin, of course, but in their own tongue", says Mayr-Harting. Translations of these texts, and possibly others, would, therefore, be necessary and Mayr-Harting's claim is supported by, for instance, the fact that Bede was working on a translation into Old English of *St. John's Gospel* just before he died - the most likely audience for this would be Anglo-Saxon converts who knew no Latin, but

who needed 'pastoral care'. Caedmon's translations may also be pertinent here - Bede suggests these were used among the laity for converting and/or pastoral work (Sherley-Price 1968: 250-253; see also Blair 1976: 121 for the same suggestion). Sections 4.5.3 to 4.5.3.2 below should also be referred to on this question.

Going further into the categories put forward above of literacy in an ecclesiastical context, we should also reckon with standards of literacy that varied not only from time to time, depending on the progress of the conversion and the consequent introduction of literacy, or from monk to monk and priest to priest within individual monasteries, but also from monastery to monastery. The latter would be inevitable, given the labour and wealth necessary for the production of manuscripts - cattle would have had to be owned, for instance, since their skins were turned into the vellum on which scribes wrote, or, failing that, the cattle would have to be bought and turned, probably by the monks themselves, into vellum (cf. Blair 1976: 156). For illuminated manuscripts, precious metals and expensive dyes were needed. For codices, the materials already mentioned plus precious stones were often required. Not every monastery would have been able to afford to produce books like the *Codex Amiatinus* written in Wearmouth-Jarrow (the vellum for this, it has been calculated, would have required the skins of 1,550 calves - see Blair 1976: 157, 186-188, 190 and 192 for a fuller description of what was involved in the production of this particular book) or the copy of the four *Gospels* ordered by Bishop Wilfrid for his church at Ripon - these were to be written in letters of gold on vellum dyed with purple and encased in gold covers set with precious stones. Wearmouth-Jarrow, on this evidence could be expected to be a monastery where a very high

standard of literacy prevailed (i.e., up to, and including, point 5 on the literacy scale given above) and this expectation is fulfilled in the large number of manuscripts and codices it produced (on these, see, for instance, Gneuss 1981; and Parkes 1982; 1987). From writing equipment found during archaeological excavations, Whitby, for example, would appear to have been another monastery where standards of literacy were high (cf. Blair 1976: 120, 155 and 1977: 154; Mayr-Harting 1972: 150). Canterbury (especially after Theodore's arrival) and Wearmouth-Jarrow, with Benedict Biscop's famous library, could also be expected to have had high literacy rates. Other monasteries, hardly, or even not, mentioned in pre-9th-century Anglo-Saxon historical records may not have had standards of literacy as high as the ones just specified, though such suppositions may not be justified in all cases. Felixstowe, for instance, is not a name that springs to mind immediately in any estimation of the quality of Anglo-Saxon monastic centres of learning, yet its bishop between c. 716 and 731, Cuthwine, apparently collected some important books (cf. Mayr-Harting 1972: 191-192). The books may, of course, have gone unread, but given the great pains Anglo-Saxons had to go to at this time to acquire or produce books (see above and also Blair 1976: Ch. 8, especially pp. 156, 196), this seems unlikely; see also §4.4.2 which follows.

4.4.2 *Extent and Products of Literacy among the Clergy*

It would be as well here to give some idea of the range of documents written by Anglo-Saxon clerics once they had acquired literacy in Latin - this will supplement and illustrate to some extent the information given above; a concise survey of the first manuscripts written in Latin by the Anglo-Saxons is given in Deanesly (1961: 183-188); for further and

fuller descriptions and discussions see Gneuss (1981); Parkes (1987); and Brown (1975: 252-276); Bieler (1976) and Bolton (1967). An indication of the indirect language contacts behind the writing of the various types of documents - in the form of known exemplars or sources - will also be given because it will support the various datings put forward in §§4.2.1 and 4.3. Detailing these exemplars or sources will also make available a potential source of evidence on the Latin spelling practices which they contain and which would therefore be familiar to the Anglo-Saxons from their usage of these sources. The sources or exemplars to which Old English speakers had access were predominantly Late Latin/Early Romance ones (cf. §4.2.1 above). This Anglo-Saxon indirect contact with written Latin is well attested from the 6th to the early 8th century, the time during which the conversion and the learning of literacy took place.

A brief description of a representative sample of the Latin documents written by Anglo-Saxons during this period now follows -

Charters - grants of land began to be made by charter as a result, it appears, of the introduction by Archbishop Theodore of Canterbury of this written means of recording and confirming such gifts. The layout and formulæ of the earliest, surviving Anglo-Saxon charters such as that of the first, extant, contemporary charter dated 679, of Lotharius (= Hlothhere), king of Kent, granting land (known as *Westanae*) on the Isle of Thanet to Abbot Bercuald (cf. Ch. 6 below), were based on Italian models, more specifically, the late, post-Imperial Roman private deed (see Whitelock 1955: 343-4; Stenton 1955: 33 and 1971: 141). The early Anglo-Saxon charters were, partly as a consequence of this pattern, written in Late Latin/Early Romance, with the exception of the

names of the grantor, grantee and witnesses and the name of the land in question, which were recorded in Old English usually.

Letters - the number of extant 6th-, 7th- and 8th-century letters written in Latin is comparatively small by comparison with the large number which must have been received and written in England. As Whitelock (1955: 571) says, "there is no type of document that has slighter chances of survival [than the letter] ...." because the contents must have seemed of ephemeral interest at the time to both sender and recipient. The high cost of writing materials, and its labour-costliness, may also have been factors in this; the former may well have led to the re-cycling and re-use of materials on which letters were written, i.e., to their becoming palimpsests. Nonetheless, some letters from these centuries written in Latin by Anglo-Saxons have been preserved, notably collections of those written to various popes by Boniface in the 8th century and over three hundred of Alcuin's letters to kings, archbishops, bishops, abbesses and noblemen, etc. in England, Gaul, Italy, Spain and Ireland. Whitelock (1955: 574) points out that many of Alcuin's, certainly, were preserved and copied as examples of style, with the names replaced by an abbreviation for *ille*. Interestingly, she also remarks that "[t]his motive for preserving letters is not uncommon" - it would be reasonable to suppose from this custom that not only the style of letters thus used as exemplars, but their spelling practice and/or spelling forms also were noted and reproduced by Anglo-Saxons writing letters in Latin - especially when the exemplars came from Rome. Examples of these would include papal letters, like the following: from Pope Sergius I to Abbot Ceolfrith of Jarrow (c. 701); from Pope Paul I to Eadberht of Northumbria and Archbishop Egbert (c. 757-758) or from Pope Constantine

I to Hædde, abbot of Bermondsey and Woking or the letter from Archbishop Theodore of Canterbury to King Ethelred of Mercia (dated 686 or 687) - this is the only survivor of the large number of letters which must surely have been written during Theodore's re-organisation of the Church in the 7th century. For full details of the letters mentioned here and others, see Whitelock (1955: 572-579).

Grammars - elementary instruction on a large scale in Latin was necessary for the Anglo-Saxons since this was the language - new and foreign to them - in which religious and secular documents had been written previous to the conversion, and continued to be after it. The bulk of information on the linguistic features of Latin had to be gained, initially, from the only grammars available, *viz.*, Late Latin ones written predominantly by Early-Romance-speakers or by Irishmen. Having imbibed these grammars, Anglo-Saxons were, thereafter, able to produce their own grammars of Latin or works on Latin metre (the study of grammar and metre were closely linked at this time) which incorporated only those aspects of the Late Latin ones which were appropriate for complete beginners in Latin (cf. Law 1982: Ch. V and 53, 106 -107, 109-111). Examples of such grammars written include, for instance, the Mercian Tatwine's *Ars Tatuini* (c. before 700); The West Saxon Wynfreth-Bonifatius's *Ars Bonifacii* (pre 719 when he received the name *Bonifatius* from the pope); the Northumbrian Bede's *De Orthographia* and *De Arte Metrica* (pre 731 at which date he listed these works among those he had written in an autobiographical note at the end of his *History of the English Church and people*) (for further details of the grammars written by Tatwine and Boniface, see Law 1978: *passim* and 1983: *passim*; on Bede's *De Orthographia*, see below at §§5.1.2.1 - 5.1.2.3).

The grammars known to, and commonly used by, the Anglo-Saxons, whether or not they wrote grammars are, according to Law's (1982) researches, as listed below. It should be noted that most of these works were copied out in manuscript form many times by the Anglo-Saxons, so their potential for influencing Anglo-Saxon Latin, and hence Old English, spelling habits, is great (cf., e.g., Dunleavy 1960: 33). A. Campbell (1959: §55) notes this possibility too, but, for some reason (unwarranted, **cf. Ch. 5/6** below), connects it only with consonant spelling practice: "the model for [the Old English] system [of consonant spellings] was clearly the Latin one preserved in grammatical tradition". **Though he does not say what this "grammatical tradition" is, the** information just about to be presented goes some way towards making good this deficiency and partly answers question d. in §4.1 above; see also §5.1.2.3 below):

The Roman Donatus's *Ars Minor* and *Ars Maior* (4th century);

The African Pompeius's commentary on Donatus's *Ars maior* (5th or 6th century). This work was "heavily used by .... Tatwine, Bede, ... Boniface and Alhelm ...." (Law, 1982: 16) when they wrote their own grammatical and/or metrical treatises;

Consentius's *Grammar* (a 5th-century work from Narbonne in the South of France);

The (presumed) Roman Charisius's *Grammar* (mid 4th century; "much used by .... Boniface [and] Bede" according to Law 1982: 19);

Priscian's *Institutio de nomine et pronomine et uerbo* (pre 7th century);

Isidore of Seville's *Etymologiae* (mid 7th century); this work, "together with the two works of Donatus [cited earlier] and Priscian's *Institutio de*

nomine .... formed the core of the early mediaeval grammarian's library" (Law 1982: 23);

The *De nuptiis Philologiae et Mercurii* of the African-born Martianus Capella who "was active in the earlier part of the 5th century" (Law 1982: 23) has been reserved till last. Only Tatwine and the Anonymous ad Cuimnanum, of those who wrote Latin grammars in Britain or Ireland at the end of the 7th century, are known definitely to have used this pre 7th century work as a source. However, a passage on the letters of the alphabet in Book III of *De Nuptiis* .... which is often found in 9th-century manuscripts (implying quite a wide knowledge of it before this date) circulated independently of the rest of the work. It is of relevance to putative Anglo-Saxon approaches to writing and its correlation with phonology. It is therefore reproduced and discussed a little at §5.1.2.2.

In addition to these grammars produced predominantly by Early Romance speakers, grammars written in Latin, but of Irish, or probable Irish, authorship were also used by Anglo-Saxons in their acquisition of literacy in Latin. Again, according to Law (1982 : *passim*), these were:

The *Epitomae* of Vigilius Maro Grammaticus (second half of the 7th century; this work enjoyed great popularity among late-7th and 8th-century Insular Latin grammarians);

The *Ars Ambianensis* (8th century);

The grammar written by the Anonymus ad Cuimnanum (mid 7th century to mid 8th); Law (1982: 29) says "he may have been active in Northern England";

The *Ars Malsachani* written by Malsachanus (8th century);

A work known, after its *incipit* as the *Agressus quidam* (7th or 8th century).

Books necessary for prayer and worship - books like this were obviously essential for the newly-established Church in England and they had, at the start, inevitably to be imported from abroad (primarily Rome and Gaul). Mayr-Harting (1972: 172-181) discusses these at greater length than there is room or scope for here; for present purposes this brief inventory should be sufficient: a 6th-century Italian illustrated gospel book, which was probably brought to Canterbury by the Gregorian missionaries; a Neapolitan gospel book (from which the text of the *Lindisfarne Gospels*, dated late 7th century, seems to have been taken, as well as the lists of gospel readings and festivals preceding the text of each gospel); a 7th-century mass book from Capua (upon which an Old English martyrology, translated from a Latin original of c. 740-755 was apparently based) - this South Italian item, and the last, may well have arrived in England in 669 with Hadrian, who came from a monastery near Naples (but cf. Mayr-Harting 1972: 176); copies of the *Gallican Rite* and, finally, homilies (see Mayr-Harting 1972: 244). This is probably an appropriate place to mention also Bede's statement (Sherley-Price 1968: 237) that John the Roman arch-cantor (cf. §4.5.1.4 below) "put into writing all that was necessary [liturgical-chant-wise] for the proper observance of festivals throughout the year" and that this document was preserved and copied for other monasteries.

Irish influence also played an important part on books used in early Anglo-Saxon worship. This is most clearly seen in books of private prayer, like the *Book of Nunnaminster* or the *Book of Cerne* (see Mayr-

Harting 1972: 182-190). Source books for meditation, known as *Libellus Precum* appear also to have had Irish origins (Mayr-Harting 1972: 190), as did the practice of singing the *Nicene Creed* at mass (cf. the *Stowe Missal* and Mayr-Harting 1972: 181-182). Canons, penitentials and hymns are also likely instances of Irish-Latin ↔ Old English indirect contact (cf. Law 1982: 6-7), as are works of biblical exegesis, such as the *Commentarium in Psalmos* produced by one of the sons of Berictfrid from an Irish exemplar or Irish sources, or Adomnan's *De locis sanctis* (c. 686), a copy of which was presented by him to King Aldfrith of Northumbria and which was known to and used by Bede (see Bullough 1964: 121-123). The effects of such indirect language contact would be felt when these books from Rome or Gaul or Ireland were copied in English scriptoria, as Whitelock (1955: 85) reports that they were, from an early date.

Books and Manuscripts in Latin for miscellaneous studies - books on subjects other than those dealt with above, such as arithmetic, astronomy, geometry and music (known collectively in the Mediaeval period as the *quadrivium*) and manuscripts, like those containing the works of the Christian poet Sedulius were also known to the Anglo-Saxons. Mayr-Harting (1972: Ch. 12) describes these. In this area, as in the ones above, Irish-Latin influence is also attested. For instance, Bede, in his *History of the English Church and people* (Sherley-Price 1968: 195), relates how, in the mid 7th century, the Irish provided the noblemen studying among them with instruction and books (unfortunately, Bede does not give any indication of what these books were). Bullough (1965: 27) claims of Bede himself - though he does not substantiate his claims in this paper - that "[he] made use of texts that either originated

in or were transmitted by Irish monasteries" and that "in several different fields of study (particularly but by no means exclusively in his earlier years) he relied heavily on such works".

4.5. *BILINGUALISM AND CONTACTS*

From the foregoing, it can be seen that there were many opportunities between the late 6th century and the 8th for Old English to come into contact with Latin and Irish. The language contact just examined was indirect, i.e., contact between native speakers of Old English (bearing in mind that Old English was not written until the conversion had taken place) and written Latin and, written Irish-influenced Latin. Direct contact, i.e., spoken contact between native speakers of Old English, on the one hand, and native speakers of Early Romance or Early Old Irish on the other, and the extent and relevance of this language contact will now be considered.

4.5.1 *Latin*

4.5.1.1 In Britain before the Conversion

It seems that some knowledge and use of spoken Latin - a remnant of the Roman occupation of Britain from c. 55 B.C. to c. 410 A.D. - persisted until the start of the 7th century in what, following the usage of Jackson (1953: 96), has become known as the *Highland Zone*, i.e., the areas north and west of an imaginary line from the Vale of York, past the Pennines and along the present-day border with Wales to those of Devon and Cornwall, or, at the very least, in what is now Wales (cf. Price 1984a: 167). This use of Latin would, in all probability, have been confined to the relatively small numbers of educated and aristocratic Britons who remained - the legacy of a diglossic situation

during the occupation in which Latin had filled the rôle of a 'high' language (used, predominantly in the *Lowland Zone* (cf. Jackson, 1953: 167), by the army, administrators and traders and those partially-Romanised Britons - for whom Latin would be a second language - who lived in the towns and villas, for military and civil administration, and legal, educational and trading purposes) and British, that of a 'low' language (used in many of the rural areas of the Lowland Zone by the lower, uneducated classes and as the only or main language in the Highland Zone). There is a strong likelihood, despite Jackson's claim to the contrary (1953: 108 ff.), that the Latin spoken in Britain during the period of the Roman occupation was much like the Imperial Latin spoken in other parts of the Empire (see, for an extremely persuasive, well-supported and convincing argument to this effect, Gratwick's 1982 paper).

While direct language contact between Primitive Welsh and Old English seems to have had little effect on the Old English language (cf. §4.2.2 above), there is evidence that Britons - whether Latin-speaking or Primitive Welsh speaking, or both, is unknown - passed on to Old English speakers a fair number of Latin loans which they themselves had borrowed during the Roman occupation. To this language contact words like the following can probably be ascribed: *fefor* 'fever', *sicor* 'safe', *mægester* 'master', *cyrtel* 'garment/coat', *punt* 'punt', *cæster* 'town', *leahtroc* 'lettuce', *forca* 'fork', *trūht* 'trout', *gloesan* 'to interpret/gloss', *græf* 'style', *munuc* 'monk', *segnian* 'to make the sign of the Cross' and *traht* 'text/passage/commentary', etc. (cf. Serjeantson 1935: 277-281; Strang 1970: §214). The last three words and others in the semantic field of religion and learning lend credence to the view expressed in

§4.3 that the Anglo-Saxons probably at least knew of the Christian religion before they were themselves converted.

This direct contact is, however, of no consequence for the Anglo-Saxons' acquisition of literacy. The one potential source of indirect contact, *viz.* the written Latin that survived, primarily in the Highland Zone, under the auspices of the British church (although its numbers must have been depleted by the devastating plague that struck Britain in the 540s) seems not to have had any bearing on Anglo-Saxons learning to read and/or write for the reasons given before in §4.2.2. As will become clear in the next few Sections, it was only as a consequence of the conversion of the Anglo-Saxons that Latin contact with Pre/Early Old English leading to literacy is ascertainable.

4.5.1.2 In Britain during the Conversion

Enquiring into the methods of conversion employed by the Roman mission yields some potentially useful information on the nature and extent of direct language contact that took place between the native speakers of Old English who were being converted and the native speakers of Early Romance who were doing the converting.

The first step of both the Roman and the Irish missions was to request a meeting with the ruler of the kingdom they wanted to convert at which they would put their case, unless a king had, as Oswald did, asked beforehand for the help of ecclesiastics in introducing the Christian religion into his kingdom. Missionary work could not begin, or succeed, without the support of the king - he had, first-of-all, ideally, to be converted; he had, if he hadn't committed himself to Christianity, to approve of, and permit, the work the missionaries planned to do among his courtiers and those outside court circles (cf., for instance,

Bede's account (in Sherley-Price 1968: 176-177), of Penda's allowing four missionaries - three Englishmen and one Irishman - to preach to the East Anglians and the Mercians, even though he himself was not, and never became, Christian); he normally then provided them with some type of base, such as a suitable, available building with land or land on which to build churches and/or a monastery; finally, depending on the first-of-all above, with the missionaries' help, he instituted laws to legally protect the church, its property and the clergy and which gave the church rights to a variety of renders, including church-scot, soul-scot, plough-alms and tithes (though the latter may originally have been voluntary).

Other than the shared preliminaries just outlined, Roman and Irish missionary methods were not much alike. "It is noticeable", as Blair (1977: 132) remarks, that the Roman missionaries and those who were trained in their tradition "concentrated their activities almost wholly upon what had been centres of population in Roman Britain and that monasticism played little or no part in their lives" (the importance for literacy monasticism has already been demonstrated; other aspects of monasticism significant for direct language contact will be discussed later on in §4.5.2.2). The South-Eastern area where Roman efforts were focussed was the only one, until the early to mid 7th century, which had a regular diocesan organisation. This was civic, rather than tribal (cf. below), as the Blair quotation above hints. Sees were established in Roman towns which had survived as places of habitation - London, Rochester and Canterbury, for instance. Though the Roman missionaries, according to Mayr-Harting (1972: 76), were, on the whole, "not lacking in courage", he also states (p. 75) that "nothing has had the effect of

detracting from the reputation of the Roman missionaries more than their habit of deserting when things went badly for them". His criticism is just. It is borne out by, for instance, Paulinus's flight from Northumbria after Edwin's death and those of Mellitus and Justus from Kent to Gaul when King Æthelberht died and, of course, the doubts and fears of the Augustinian mission when it had travelled only a short distance from Rome - these were so great that Augustine was despatched back to Rome by the monks accompanying him to request Pope Gregory to recall them from "so dangerous, arduous, and uncertain a journey" to "a barbarous, fierce, and pagan nation" (Sherley-Price 1968: 67, 66). In addition, once they actually reached England, members of the Roman mission were, according to Mayr-Harting (1972: 70) and his sources, characterised by aloofness and the Roman virtue of *gravitas* and, as he goes on to say: "[w]here gravity is cultivated as a primary virtue, where exterior deportment, calm dignity and restraint in words and actions count for so much, there will be an ethos unfavourable to the spontaneous exhibitions of personality [or emotion]" - characteristics of the Irish which seem to have contributed to their being more effective missionaries amongst the English than the Romans. Blair (1977: 127) puts it nicely (if at points a little condescendingly) when he says: ".... the work of the Irish missionaries .... must be recognized for the great achievement that it was. Their simpler, more ascetic way of living had a greater appeal for primitive peoples than the .... highly organized ways of Rome. .... the triumph [of the Roman Church] in England belonged less to the age of the conversion than to the succeeding age of Bede". These bents for organisation, aloofness and authority can be seen in Roman methods of preaching which seem to have depended on already-willing Anglo-Saxons

coming to them rather than the Romans going out to preach to the unconverted. Bede, for instance, describes how Augustine's preaching took place in St. Martin's church in Canterbury (Sherley-Price 1968: 71). When Paulinus spent his legendary thirty-six days "doing nothing from dawn to dusk" but preaching in Yeavering, Yorkshire, it was the people from the surrounding villages and countryside who came to him, not the other way around, cf. Sherley-Price (1968: 129) - though, of course, it must be borne in mind that he baptised those who did become Christians at the time and this task would have been made immeasurably more difficult, if not impossible, had he not had a ready source of water, such as the River Glen at Yeavering. Further insights into Roman preaching modes can be gained by looking at Augustine's mission in Kent. It owed its apparent success not so much to preaching and persuasion as to example, as Bede describes [emphases in the following extract are mine]:

> They [Augustine and his monks] were constantly at prayer; they fasted and kept vigils[.] .... They were willing to endure any hardship, and even to die for the truth which they proclaimed. Before long a number of heathen, **admiring the simplicity of their holy lives** and the comfort of their heavenly message, believed and were baptized. .... At length the king himself, among others, **edified by the pure lives of these holy men** .... believed and was baptized.
> *(Sherley-Price 1968: 70-71)*

4.5.1.3 From Gaul

There is evidence of direct language contact between the Anglo-Saxon inhabitants of the South and East of England and Early-Romance speaking areas, particularly Gaul, in the 6th, 7th and 8th centuries (see again §4.3 and references therein, as well as Stenton 1971: 59-62, 219-224 *passim*). It is true that some of this spoken communication may well have taken place in some form of West Germanic, since both Old English

and Frankish are West Germanic languages, and since it is thought that Frankish continued to be used to some extent alongside Early Romance speech in Gaul for several centuries after the establishment of Frankish rule in the late 5th century (see, for instance, Price 1984b: §1.5). Nevertheless, the majority of the population in the areas of Gaul of interest here spoke Early Romance cf. Pope (1934: §§17-24). Several factors lead to this conclusion: "earlier Latinisation" was extensive and deep (see Harris 1988a: 2); the Franks did not settle *en masse*, so they constituted a geographically-restricted minority - though a ruling one - among the Gaulish population; Latin was, and continued to be, the high-prestige language of administration and certainly religion in Western Europe and, finally, the fact that Romance speech has persisted up until now - though with a "significant Frankish overlay" of vocabulary (Harris 1988a: 2) and some Frankish influence on phonology (cf. Price 1984b: §§1.5, 3.2, 3.3 and 4.5.4.3). Given, in addition, that it is uncertain how mutually-intelligible Old English and Frankish were at the time (though cf. §4.5.3.1 below), and, therefore, that we do not know how useful Frankish would have been as a means of communication with Old English speakers, it seems fair to assume that direct language contact between Anglo-Saxon England and Gaul must have involved, to a greater or lesser extent, contact with spoken Early Romance.

4.5.1.4 From Rome

Direct communication between Early Romance speakers in Rome and Old English speakers also took place, but this was, by contrast with the Gaulish situation, almost wholly in the context of religion. Some of these contacts have been described earlier and further evidence now follows, though the list is not complete or chronologically-arranged -

English clergy educated in some respect and/or to some degree by Romans, either in England, or abroad in Rome or Gaul:

Wilfrid (partly; in Canterbury, under Theodore); Wearmouth-Jarrow cantors (and English clergy who went to Wearmouth-Jarrow specially from other parts of Northumbria) were taught "the theory and practice of singing and **reading aloud**" (Sherley-Price 1968: 236-237; emphasis mine) by the Arch-cantor John from Rome (Bede goes on to say that he was invited to teach elsewhere in England, but does not say whether or not he accepted these invitations); Aldhelm (partly), etc..

English clergy who travelled to and fro between Rome and England to make pilgrimages (apparently considered an act of great merit), to collect books, and so on, or went to Gaul for consecration:

Bishop Cuthwine of Felixstowe; Aldhelm; Wilfrid; Berhtwald, Archbishop of Canterbury (consecrated in Gaul, 693); Benedict Biscop (collected many books, from Rome and the Rhône Valley, on six known journeys to Rome, three of them before 669); Wini, Bishop of Wessex (though only for a short time; he was replaced by Leutherius from Gaul), etc..

4.5.1.5 Linguistic Evidence

In addition to the historical evidence presented in §§4.5.1.2 to 4.5.1.4, we have the evidence of a large number of loanwords assumed to have been borrowed from Latin as a result of this direct language contact (although, inevitably, some of the words in question will have entered Old English via Late Latin writing, rather than Early Romance speech and many of them may have been confined to writing, cf. Serjeantson 1935: 16; 281-288). In addition, not all of them will have been

borrowed before the 8th century, by which time the Anglo-Saxons had become literate (see again §§1.4.2 - 1.4.4 above, as well as references therein, on criteria for dating loanwords). Keeping in mind these limitations, the following loanwords may be pretty safely cited as appropriate examples: *abbod* 'abbot', *ælmesse* 'alms', *scrīn* 'shrine', *tempel* 'temple'. Not all of the words borrowed at this time were to do with religion, though, for instance, *quaterniol* '4 on dice', *feolufer* 'bittern', *plant(e)*, 'plant'.

4.5.2 *Irish*

4.5.2.1 In Britain before the Conversion

There is firm evidence that some western parts of Wales and England were occupied by Irish-speaking communities at varying times between c. 450 and the early 7th century. This evidence takes the form of *ogam* inscriptions (on which, see §5.1.2.2 below and references therein) and place-names and the distribution of these gives an idea of where these Irish speakers settled. Thirty-seven inscriptions survive in south-west Wales (Dyfed) and three in the north-west. The latter are in an area that also contains place-names that "either make reference to the Irish or are of Irish origin" (Price 1984a: 31), e.g., *Llyn Iweddon* 'Lake of Ireland' or *Dolwyddelan* 'Gwyddelan's meadow' (*Gwyddelan* ← *Gwyddel* 'a Gael/Irishman'). Six ogam inscriptions are sited in Cornwall and two in Devon. There are two in Argyll (dating from some time after the second half of the 5th century when the Goidels of Dálriada in Antrim crossed to Argyll and founded a new Dálriada) and one stray in Hampshire. Most of these fifty-one funerary inscriptions are accompanied by others which are either almost exact copies in Latin or, at the very least, consist of a Celtic name in Latin letters.

The language affected by contact with Irish, when and where such contact occurred, seems, however, to have been British, not Old English - British speakers formed the larger part of the population in Britain, until at least the 6th century. It is evidenced linguistically in the numerous words of Primitive Irish origin that are found in Modern Welsh, e.g., *brechdan* 'bread and butter/sandwich' (cf. OIr *brechtán*), *cogor* 'chattering' (cf. OIr *cocur* 'whisper') or *dengyn* 'grim/stubborn/inflexible' (cf. OIr *dangen* 'strong/firm'). This supposition is borne out by the consideration that the areas where Irish speakers, on the available evidence, settled are also those areas which did not come under English rule, like Wales, or were so only temporarily and nominally - Argyll was at two points only, in the mid and the late 7th century, under Northumbrian overlordship. As mentioned in §4.2.2 above, Cornwall did not become Anglo-Saxon territory until 815 and not until the early 8th century did Devon pass completely from British into West-Saxon hands (it had taken about seventy-five years for this to happen). Stenton (1971: 212-215, 230, 327; 86-88; 235; 64, 68, 73 - these pages should be consulted in the order given here) records the details underlying the summaries here. The position with regard to language contact between Irish and Old English in Britain before the Anglo-Saxon conversion is, then, similar to that between Latin and Old English in the same period. Irish influence on Pre/Early Old English is discernible only as a result of the conversion. This will now be examined.

4.5.2.2 In Britain during the Conversion

As was the case with the enquiry above into Roman methods of conversion, investigating the Irish ones produces information useful to an assessment of the extent of direct Early Old Irish ↔ Pre Old English

language contact. Irish Christianity, by contrast with its Roman counterpart, was, by the 6th and 7th centuries, predominantly monastic (for a description of it, see Evans n.d.: 79-80). Monasteries "were of supreme importance in the spread of Christianity through the countryside" (Mayr-Harting 1972: 242). This was the case for several reasons. Irish bishops, unlike Roman ones, were subject to the authority of the abbot in charge of a monastery (sometimes they were one and the same person). Abbots were responsible for ecclesiastical jurisdiction and administration, so the activities of an Irish bishop were very much freer that those of his Roman counterpart and more like those of an ordinary monk: in addition to any occupations he had within the monastery (e.g., meditating, i.e., either reading the Bible or learning Psalms, attending services like Mass, singing hymns (an activity not practised by the Romans), guiding novices, receiving visitors, carrying buckets of water, writing manuscripts, tending crops, etc., etc.), outside it he preached, baptised, confirmed, etc. with no fixed diocesan boundaries to limit his endeavours. Because of the monastic organisation of the Irish church, such boundaries did not figure (as stated previously, they did not exist much outwith the South East of England at this time). Irish missionary work was undertaken, partly as a consequence of this on a tribal, rather than an ecclesiastically-defined, urban basis, as exemplified by the activities of Bishop Cedd in the mid 7th century. He evangelised amongst the East Saxons after King Sigeberht was converted, but the monastery to which he was officially attached was Lindisfarne. Cedd did not become bishop of a place, but of a people - the East Saxons. This, more closely than the Roman system, matched the way Anglo-Saxon society and settlement were organised at this time: the former according

to tribal divisions and the latter in a pattern of dispersed hamlets and farmsteads - settlement clustering in the form of villages and royal or noble estates, did not come into being much before the early to mid 7th century, though most old Roman towns, like London and Canterbury, were, of course, inhabited by the Anglo-Saxons (cf. Stenton 1971: 282-314; Sawyer 1978: Ch. III and 220-222; Copley 1988: 19-24). There is another, perhaps more crucial, difference between the missionary methods and attitudes of the two missions. The Irish went out, in most cases on foot, actively seeking people to convert. Boisil, and his successor, Cuthbert both went out from their monastery, Melrose, visiting the inhabitants who lived on the hills round about on preaching tours which lasted for weeks. The point about travelling on foot is an important one. Being on foot rather than on horseback meant that if the missionaries met anyone on their travels, they could more easily stop and converse with them whether to attempt to convert them or, if they were already converted, to "strengthen .... their faith" (Sherley-Price 1968: 148). It also meant that when talking with people they could do so on the level (in more ways than one), rather than from on high (in both senses). This courtesy, humanity and concern with, and for, the individual, together with a lack of concern for worldly trappings arose in part from the great value they placed on Christian charity (to take only one example, Aidán had been gifted with a horse by King Oswin of Northumbria, but had given it away to a beggar he met soon after he got it) and in part from the conscientiousness with which they carried out the missionary and ministering work required of them by the monastic rule to which they had sworn obedience. Anglo-Saxons, whether Christian or not, they met on their travels clearly reacted extremely

positively to them (see Bede, for example, on this - in Sherley-Price's 1968 edition and translation, pp. 193-194). Allied to these characteristics were boldness and a tendency towards drama (including the infamous Celtic custom of cursing) when it was considered necessary. Even those of non-Irish nationality, but who had been trained in the Irish tradition, subscribed to this behaviour, witness the English bishop Cedd's rebuke of King Sigeberht of the East Angles whom he saw leaving the house of an excommunicated noble after having attended a feast there. Cedd had previously forbidden anyone to enter the nobleman's house or eat at his table. Cedd, in Bede's words, "touched the prostrate king with the staff in his hand, exercised his pontifical authority and said: 'I tell you that, since you have refused to avoid the house of a man who is lost and damned, this very house will be the place of your death'." (Sherley-Price 1968: 179-180). And, lo and behold, the cursing and prophecy came true.

4.5.2.3 From Ireland

Aside from the conversion, evidence exists of direct Early Old Irish ↔ Pre Old English language contact in the period of relevance here but, as with the Early Romance contact described earlier (§§4.5.1.3 and 4.5.1.4), and by contrast with any language contact between Anglo-Saxon laymen and Irish clerics that took place during the conversion, this is immediately pertinent to the Anglo-Saxon acquisition of literacy. Direct language contact between either Early Romance-speaking or Early Old Irish-speaking and Old English-speaking clerics is of much greater importance in this connection than direct language contact of a secular kind (e.g., trade relations) because the Church produced almost all written documents at this time. Some of these contacts have been

specified already in preceding Sections, others are now given below (not a comprehensive or chronologically-ordered listing) -

English clergy educated by Irishmen living in England:

Cedd; Trumhere (who succeeded Ceollach as Bishop of the Mercians; both Ceollach and his predecessor Diuma - the very first Bishop of the Mercians - were Irish); Wilfrid (partly); Tuda (who succeeded the Irishman Colmán as Bishop of Lindisfarne) ; Eata; Colmán (an Englishman); Aldhelm (partly); Heiu (who founded the monastery at Hartlepool) and Hild (who founded Whitby monastery) were both protegées of Aidán, etc..

Kings, nobles, etc. converted, or educated (or both), by the Irish whilst living among them, either on Iona or in Ireland:

Kings of Northumbria - Oswald (633-643); Oswiu (king of Bernicia, and, later, Deira as well; 643-670); cf. also §§4.3 and 4.3.1.1 above.

Monasteries set up by the Irish in England:

Malmesbury (by Maildubh, mid 7th century); Bosham (by Dicuill); Fursey's monastery at Burgh Castle (c. 630); Lindisfarne (by Aidán, 635); Melrose (6th century), etc..

4.5.2.4 Linguistic Evidence

Despite the abundance of direct language contact attested by the historical evidence put forward above, evidence of this contact in the form of Irish loans in Old English is surprisingly slender. Examples - almost all of them - include: *drȳ* 'magician/sorcerer' and *clucge* 'a bell'. There are also some words, ultimately of Latin origin, which came into Old English through Irish, for instance, *ancor* 'a hermit/anchorite', *stǣr* 'history'; *cros* 'cross (of stone)' and *æstel*

'bookmark' are other possible examples (cf. Serjeantson 1935: 59-60; Strang 1970: §205).

4.5.3 *Bilingualism*

4.5.3.1 Historical Evidence

The extent of Early Romance or Early Old Irish ↔ Pre/Early Old English bilingualism in Anglo-Saxon England during the conversion and the acquisition of literacy is unknown. But, again, historical evidence, virtually all of it gleaned from Bede's *History of the English Church and people* (Sherley-Price 1968), can give some clues as to what the situation might have been. On the one hand, Bede tells of Anglo-Saxons like the 7th-century Northumbrian kings Oswald and Oswy, or Cedd who had learned Early Old Irish well enough to be able to act as translators for Early Old Irish speakers; Cedd was apparently a good Early Romance speaker too since he "acted as a most careful interpreter for both parties" at the Synod of Whitby in 664 (see pp. 145, 187, 187-188). The Irish bishop Colmán could presumably speak Pre/Early Old English since Bede (pp. 188-192), who very assiduously reports the need of various speakers at this Synod for translators, makes no mention of Colmán needing one. On the other hand, Bede describes kings and clergy who could speak only their native languages. Coenwalh, king of the West Saxons, for instances, "understood only Saxon" (p. 152) which caused him to tire of his Frankish bishop Agilbert's "foreign speech" and led to Agilbert returning to his native Gaul. Agilbert had, previous to this, when attending the Whitby Synod, requested Wilfrid to speak instead of him because "he [could] explain [their shared] view in the English language more competently and clearly than [he himself] could do through an interpreter" (p. 188). Neither King Oswin, Oswald's

successor, nor his servants were able to understand Aidán's Early Old Irish speech (p. 165). Aidán himself "was not fluent in the English language" and needed King Oswald to translate what he preached to Oswald's ealdorman and thanes (p. 145).

From Bede's evidence, we can infer that full bilingualism in speech existed to some extent among speakers whose first language was either Pre/Early Old English or Early Old Irish - at least in the early 7th century. Bede's description of Aidán's linguistic shortcomings is ambiguous - the Irish bishop might have been able to speak a certain amount of Old English not very well, or none at all. Full bilingualism like this may have been more extensive than the few instances cited by Bede would suggest. However, since he seems to make a great deal of the skills of the people involved in those instances he does report, it would be more prudent to assume that bilingualism in speech among clerics was relatively unusual. This assumption is lent support by an incident involving Boniface when he had an audience with the Pope in Rome in 722. He begged permission, when asked to confess his faith, to write it down instead of delivering it orally - "My Lord Pope, as a stranger I am conscious that I lack the skill in the use of the tongue with which you are familiar [*uestrae familiaritatis sermo*], but grant me leisure and time, I beseech you, to write down my confession of faith, so that my words and not my tongue may make a reasonable presentation of the truths I believe" (Crépin 1976: 173). This suggests that Boniface - a native Old English speaker - could not, or not very well, speak Early Romance, but was able to write, or was more confident in writing, Late Latin. Furthermore, it is noticeable that Bede does not mention spoken Latin (i.e., Early Romance) in the context of translation-requirements in

England. This could mean either that speakers whose first language was Early Romance could also speak Old English very well or that they relied so regularly on Anglo-Saxons translating what they said into English for their audiences that there was no need to state this specially. The first is very unlikely if the linguistic skills of Augustine and his party are representative. One of the reasons why the monks who accompanied him were not keen on going to England was that "they were ignorant" of the "very language" spoken in that "barbarous, fierce and pagan nation" (Sherley-Price 1968: 66). They therefore brought Frankish interpreters with them who would at least be able to communicate with Queen Bertha and her chaplain Liudhard, or with the Franks who, as J. Campbell asserts (1986: 53), were living in Kent at the time when the conversion began.

This brings us on to the question of how missionaries whose native language was not Old English were able to preach to Anglo-Saxons whose only language, in most cases, was Old English. From the practice of taking in and educating English boys whenever they set up monasteries, it would be fair to suppose that the early missionaries depended on them to translate their preaching into Old English for their Anglo-Saxon audiences. The evangelisation of the Middle Angles, for instance, seems to have proceeded in this way. It was carried out by four priests - Diuma, Cedd, Adda and Betti. The first, and presumably the most senior of the party, since he became the first Bishop of the Middle Angles, was Diuma - an Irishman. The other three members of the party were English (an interesting parallel is provided by the procedure of the Irish missionary Columcille, whose conversion of "two Pictish households" was apparently achieved by his preaching through an

interpreter - cf. Hughes 1972: 225). This suggestion that Old English was the medium used in conversion and pastoral work is given credence also by the practice, described in §4.4.1, of paraphrasing in Old English portions of the Bible or translating the Gospels into Old English (see also Hill 1976 on this very question and Deanesly 1961: 167-171 on translations of other texts for this purpose), as well as the lay recitation of the *Apostles' Creed* daily in Old English. Further support comes from one of the injunctions issued at the Synod of Clofesho in 747 which says that "[p]riests are to be capable of explaining in the vernacular the Creed and the Lord's Prayer, the Mass and the office of baptism, and of expounding their spiritual significance" (Whitelock 1955: 87; emphasis mine). This, admittedly, relates to a time later than the conversion proper, but, given the continuing need for pastoral care, and a presumably continuing need for conversion of the one or two generations beyond those converted in the late 6th and 7th centuries, it is, I think admissible.

4.5.3.2 Linguistic Evidence

The largish number of Latin loans borrowed into Old English could conceivably be taken as an indication that blilingualism, whether full or not, was fairly extensive for a time among at least some of the clergy. The historical evidence just presented does not bear this out and neither does the linguistic evidence. The Latin loans borrowed were words belonging to the open classes. The biggest majority of these were nouns, followed by a few verbs, then by adjectives (described by Serjeantson 1935: 14 as "rare"; the phonological assimilation of these loans is also outlined by Serjeantson in pp. 289-292). In addition to this borrowing of individual words, we find also a number of calques or

loan-translations, e.g., *ealmihtig* 'almighty', corresponding to Latin *omnipotens; upāstigenness*, literally 'a state of being up gone', i.e. 'ascension', corresponding to Latin *ascensio*; or *hēahfæder*, literally 'high father', i.e. 'patriarch' or 'God', corresponding to Latin *patriarchus*. Semantic calques were also developed, e.g., *heofon* 'heaven', which meant originally only 'sky' (the latter word and meaning were borrowed from Old Norse) or *fullian* 'to baptise', which meant originally 'to make wholly consecrated' (**fulwīhan* → *fullian*). Lass (1987: 50) points out that "the larger number of religious terms were actually not borrowed [from Latin] but developed out of indigenous material".

It is notable that only free morphemes, i.e., whole words, were borrowed and that these were open class items - these are the elements "most easily and commonly taken over .... from the donor language" because "incorporating them does not involve any structural alteration in the borrowing language" (Aitchison 1981: 120, 123); what Lass (1987: 61) calls "functional intimate bilingualism" is required before closed class items, like pronouns, prepositions, conjunctions, are taken into one language from another (cf. e.g., *their, they* and *them* - personal pronouns borrowed from Scandinavian into English as a result of such language contact; see just below for conclusions with regard to Latin and Pre/Early Old English contact). The borrowing of bound morphemes, such as derivational suffixes (post-Old English examples would include *-ible, -ate, -ion*) did not take place - native Old English suffixes were substituted instead, e.g., Latin *mechanicus* appears in Old English as *mechanisc*. Since bound morphemes (expressing, as they do, grammatical categories) are as a rule borrowed from one language to another only as a result of "intimate contact between two languages that

.... last[s] for a considerable time" (Lehiste 1988: 22), this evidence suggests the Latin ↔ Old English contact that took place as a result of the conversion was not of this kind (though it should be borne in mind that lack of borrowing of closed class words is not evidence against bilingualism). Lass (1987: 59) states that "[i]t is possible to have extensive borrowing without anything approaching 'bilingualism' in the normal sense, or even active command of the source language - as long as there is an extensive literary acquaintance" (cf. also Weinreich 1953: 56 - "[t]here is no doubt that lexical borrowing is less restricted to the bilingual portion of a language community than phonic or grammatical interference"). It has already been shown (cf. §4.4.2 above) that the latter condition specified by Lass was fulfilled in England in the relevant period. The borrowing of a fair number of Latin loans into Old English can, therefore, most plausibly be explained as arising from the introduction - necessitated by the conversion to Christianity - of a number of new concepts which required new words to express them. The borrowing of words to do with concepts and objects other than religious ones came about because of the cultural innovations, including new acquaintance with Latin literature, that accompanied the new religion (incidentally, the smallness of the number of Irish loans borrowed into Old English might be partially explained by the fact that the universal language and terminology of Christianity - including Irish Christianity - were Latin).

4.5.3.3 Bilingualism and Old English

From what has been said in the preceding Section, it seems that very little Early Romance or Early Old Irish ↔ Pre/Early Old English spoken bilingualism existed in the 7th and 8th centuries in England.

Interference in spoken Old English from either Early Romance or Early Old Irish would be not, therefore be looked for. This expectation is strengthened by the findings of Weinreich (1953) as expressed, with modifications to suit this particular linguistic situation, on his p. 21 thus:

> (a) A bilingual [i.e., Early Romance + Pre/Early Old English or Early Old Irish + Pre/Early Old English] speaker attempting to speak [Pre/Early Old English] .... renders the sounds of [Pre/Early Old English] by reference to the [phonemic] system of [Early Romance or Early Old Irish] which to him is primary; the unilingual speaker-listener of [Pre/Early Old English] then interprets this .... speech by reference to the [Pre/Early Old English] [phonemic] system as the primary one.
>
> [and, in a parallel way:]
>
> (b) A bilingual [i.e., Pre/Early Old English + Early Romance or Pre/Early Old English + Early Old Irish] speaker attempting to speak [Early Romance or Early Old Irish] .... renders the sounds of [Early Romance or Early Old Irish] by reference to the [phonemic] system of [Pre/Early Old English] which to him is primary; the unilingual speaker-listener of [Early Romance or Early Old Irish] then interprets this .... speech by reference to the [Early Romance or Early Old Irish] [phonemic] system as the primary one.

Either way, the primary linguistic system of the native speakers of a particular language seems to win. In addition. we have no evidence of interference in Pre/Early Old English speech from either of these other two languages (admittedly, this is impossible to trace because we have no access to the source of such evidence, *viz.*, the speech of native Pre/Early Old English speakers, or aural recordings of it). Having said this, however, it is beyond doubt that native speakers of Early Romance or Early Old Irish were the very first teachers the Anglo-Saxons had when they began to learn the letters of the Roman alphabet and the phonic values attached to them when reading, and later when writing,

Latin (on these matters, see §§5.1 - 5.2.3.5 below). Even if the sounds given to the Anglo-Saxons by these non-Old-English-speaking teachers for pronouncing Latin were interpreted by their Old-English-speaking pupils in terms of their native Pre/Early Old English phonemic system (cf. the second part of (a) above), the probability of linguistic influence from these non-Old-English sources on the spelling ~ sound correspondences which were set up at this point for the reading and writing of Latin is undeniable. Equally strong is the likelihood that the spelling ~ sound correspondences chosen and established for this purpose filtered through into the subsequent writing of Early Old English. An attempt to estimate the nature of this influence can be made by looking into the means by which it was imparted, i.e., by looking at how the Anglo-Saxons were taught to read and write Latin. The degree of this influence can only really be judged by comparing and contrasting the reconstructed sound values of Early Romance and of Early Old Irish[21] and their associated spellings - the 'supply' - with the sound values reconstructed for Pre Old English which required to be written down for the first time - the 'demand'. This exercise would reveal the adequacies and shortfalls of 'supply' in relation to 'demand'. These, in turn, would allow it to be determined whether scribes attempting to write Early Old English could straightforwardly adopt the Late Latin/Early Romance spellings (whether from Roman/Gaulish or Irish sources) with which they were already familiar or whether, and to what extent, they would have had to adapt them. The relative degrees of adoption and adaptation could then be assessed by examining such scribes' spelling practice in some of the earliest documents which contain written Old English. The

nature and degree of this influence, the 'exercise' just described and its subsequences will be the concern of the next two Chapters.

CHAPTER 5:

ABCs

5.1 *METHODS, PRINCIPLES AND PRACTICE*

5.1.1 *Methods*

We have no information on how Latin classes were conducted in early Anglo-Saxon England. The first teachers, unable for the most part, in the beginning at any rate, to speak any or much Old English, would, presumably, have enlisted the help of the few bilingual Early Old English ↔ Early Romance, or Early Old English ↔ Early Old Irish Anglo-Saxons there were (recall the discussion earlier at 4.5.3.1) when introducing Anglo-Saxons, who were unilingual in Early Old English, to literacy in Latin. These bilingual Anglo-Saxons might have translated into Old English the whole lesson taught by the foreign missionaries. Alternatively, they may have handled only the necessary preliminaries in reading and writing classes, perhaps only introducing the teacher and the topic, with the foreign teacher then taking over the lesson - very little knowledge of spoken Early Old English would be necessary at the basic level of teaching Roman-letter~Latin-sound correspondences, or syllables, or words (cf. below). At any rate, the spelling~sound correspondences given to the Anglo-Saxons for reading and writing Latin (whether directly from the mouths of the missionaries or via those of their Early Old English-speaking intermediaries) must have been those familiar to and used by the missionaries when they themselves wrote Late Latin or Early Old Irish (or Hiberno-Latin) - see further §§5.2 ff., §§5.3 ff

underneath. It seems relevant at this point to examine briefly some of the principles which might have underlain these teaching methods.

5.1.2 *Principles*

5.1.2.1 Psycholinguistic Theories

We have no direct evidence of what the Anglo-Saxons or their teachers perceived as the 'psychologically-real', or primary, phonological unit. The best we can do is to make inferences based on present-day psycholinguistic knowledge - rather sketchy though it is. In Ch. 3, evidence was presented which pointed to the phoneme being the primary phonological unit perceived by hearers/listeners, at least under experimental conditions. This is contradicted, however, by, for instance, Labov (1972 - cited in Linell 1979: 41-42), who asserts that, while speakers are able consistently to keep phonemes apart and distinct in speech, they are not necessarily able to discriminate between them perceptually when they are presented to them in minimal pair tests. Even if Labov's assertion is not accepted, several other factors, weaken the case for the phoneme as the primary unit of perception. The first group of factors has to do with the nature of the psycholinguistic experiments themselves. With regard to articulation/speaking, it appears that the conditions in which experiments are conducted may well be too artificial for their findings to be definitive or wholly accurate with regard to how speech is normally perceived. This is so for at least four reasons (cf. Derwing *et al* 1986: 53; Linell 1979: 66-67): (1) in experiments where the speakers/recorders of the words played to hearer/listeners in the test(s) have read them from an orthographic list, there is the possibility that the speakers might be/have been influenced

in their segmentation by the orthography. Even where this is not the case Derwing *et al* (1986) and Derwing and Dow (1987) point out a further risk, in experiments like these, of orthographic "contamination", i.e., the possibility that knowledge of spelling "impinge[d] critically" on the "phonological judgements" of the informants (1986: 45) when they were asked to segment words into "phonological units" (the expectation was that these would be phonemes), whether or not the words were presented orally/aurally or visually. They report that there was "a very strong tendency for subjects to use .... traditional orthography as a guide" in segmentalising (1986: 58); and/or (2) depending on their linguistic background and speech habits, the speakers/recorders might also introduce systematic differences from their own speech patterns, such as vowel length, or, in the case of neutralisation word-medially between the phonemes /t/ and /d/, via the archiphoneme //T// as in, e.g., words like *writer* and *rider.* These could, in turn, serve as distinctive cues to the listeners, in the latter case perhaps leading them to 'hear' /d/ rather than /t/ or *vice versa*; (3) the speakers/recorders' speech may well be generally much more 'careful', distinct and segmented than usual because of the nature of their task and this might mean that hearers/listeners' notions about segments and segmentation will be pre-judged or pre-empted; and (4) depending on their respective linguistic backgrounds, speakers/recorders may segment words differently from the hearers/listeners and in this way influence hearers/listeners' judgments of segmentation.

Outside of experimental conditions, evidence as to how people perceive and articulate, i.e., hear/listen and speak, casts some doubt on the efficacy and reliability of experiments such as those being discussed

here. Hearers/listeners tend to direct their energy primarily to the semantic and syntactic properties of utterances and are only subsidiarily conscious of the sounds of which they are made up. Indeed, it seems that comprehension of an utterance may be impeded quite badly if the hearer/listener concentrates too much on the sounds of the utterance rather than its semantics and syntax (cf. Linell 1979: 44-46, 64). In addition, sounds are not fixed and distinct in articulation and it is not possible, because of the normal speed of utterance for hearers/listeners to process and identify *per se* the sounds one by one as they hear them. Aitchison (1983: 196-198) and Linell (1979; 64-65) claim that, as a result, hearers/listeners tend to impose on utterances what they expect to hear and actively reconstruct the utterance in accordance with their expectations. Alternatively, or in addition, as Garman (1990: 188) suggests, acoustic cues (i.e., information about "preceding, current and following phonemes inter-leaved with each other") may be "transmitted through the auditory system to some integrating component, which assembles and interprets the cues in the form of language-specific distinctive sound-classes [i.e.,] phonemes".

Garman's suggestion seems, then, to support the phoneme as <u>the</u> unit of phonology that is 'psychologically real' to hearers/listeners. But, as Derwing *et al* (1986: 65, fn. 21) point out "there are several other quite viable candidates besides the [phoneme] for the status of 'psychologically real' units of speech perception .... among them the syllable, rhyme, onset, nucleus, coda [i.e., components of the syllable] and feature". Linell (1979: 67) cites numerous investigations that seem to speak for the syllable, rather than the phoneme, being a phonological prime. The research findings include: the idea of syllables as primary

units of articulation - cf. Aitchison (1981: 250-253); Linell (1979: 66-68) and Garman (1990: 151-157 - incidentally, Garman also produces evidence supporting the phoneme in this rôle and rejecting *feature* for it) and the idea of the syllable as the main phonic unit perceived by hearer/listeners - cf. Linell (1979: 68). Perhaps all that can be concluded on the matter of hearer/listeners' perception is that both phonemes and syllables are important phonological units. Savin & Bever's remarks (1970: 299), cited in Linell (1979: 68) can, therefore, reasonably be concurred with: "phonemes can be identified only after 'some larger linguistic sequence (e.g., syllables or words) of which they are part'". In other words, while phonemes do seem to be perceivable as primary or basic phonological units, they also function and are perceived to function as segmental constituents of syllables or word forms (see also further below).

Clearly it is impossible to know how far these modern-day findings are applicable to the Anglo-Saxons and their teachers of Latin (thence Old English) speaking and writing. Virtually the only insight we can gain into the principles underlying the probable methods employed in Anglo-Saxon schools (whether attached to monasteries, as was usual, or not) to teach spoken and written Latin is the account by Bede (in Sherley-Price 1968: 272) of John, Bishop of Hexham's miraculous curing of a boy's dumbness. After he had "loosed" "the lad's tongue" by getting him to say the word *yea*, John's 'lesson' began by getting the boy to say "the names of each of the letters", *A*, *B*, etc.. When he had repeated each of these, he proceeded to syllables, then words and, finally, sentences. This suggests that Anglo-Saxons learning to read Latin aloud were first taught to say sound units (probably phonemes, cf.

the next Section) and to associate these with particular graphs or digraphs. Syllables, then words, then sentences would be taught in the same way. This evidence, slim though it is, agrees with, or at least does not contradict, the conclusion reached in the previous paragraph.

5.1.2.2 Pertaining to the Old English Writing System

These two conclusions reached in §5.1.2.1 are, of course, relevant to the matter in hand only insofar as they throw light on the writing system used by the Anglo-Saxons to write, first of all, Latin and then Old English - or, rather, the principles governing their approach to the writing and spelling of Latin and/or Old English. What information can be pieced together on these principles should now be considered. The procedure for teaching speech described in the preceding Section has unmistakeable parallels with the grammatical tradition informing the writing of Latin on the one hand, and of Hiberno-Latin and Old Irish on the other. Weinstock (1987) describes the tradition which determined the Roman approach to writing Latin - this is outlined below. It seems to have been applied also to the manuscript writing of Hiberno-Latin and Old Irish - cf. Thurneysen (1980: 23); Ahlqvist (1985: 248-249) and Calder's 1917 edition and translation of the *Auraicept na nÉces*, 'The Scholars' Primer', especially pp. 25-29, 35-37. In his introduction to the *Auraicept* (p. xxii), Calder writes that a "brief study of the Auraicept is sufficient to convince one that the leading extraneous source is the Latin Grammarians. Some of them are cited by name, Priscian ...., Donatus ...., Pompeius, and Consentius". Because the surviving manuscripts of it are not contemporareous with the date of writing of the *Auraicept* itself (it dates from "perhaps as early as the seventh century and definitely within the Old Irish period: 600-900" as Ahlqvist reports -

1985: 249), it could be argued that the citations from these Latin grammarians that it contains were later additions. But, as Calder points out, the subject-matter of the *Auraicept*, with the exception of the information on the native Ogam alphabet (on ogam, see Harvey, 1987(a), 1987(b) and 1990; McManus, 1986; Stevenson, 1989: 139-148 and King: In Progress), is largely identical with that contained in the grammars written by the above-named Latin grammarians, *viz.*, grammatical information about noun and adjective paradigms in Latin, on prepositions and their governing cases and on the Roman-letter alphabet and its division into letters that are/represent vowels and consonants (vowels are further divided into vowels, i.e., monophthongs, and diphthongs - cf. pp. 101, 105, 111; consonants are subdivided into "semivowels", i.e., consonants whose "supporting vowels come before" them when the letters are pronounced in isolation and "mutes", i.e., consonants whose "supporting vowels come before" them when pronounced in isolation). These two traditions - the Latin and the Hiberno-Latin - underpinned that taught to the Anglo-Saxons. The Imperial and Early Romance grammars of Latin and the attitudes of the grammarians who wrote them are described and discussed in Lindsay (1894), Sturteyvant (1940), Kent (1945), Wright (1976), (1981) and (1982). The content of the the Latin grammars themselves may be consulted in Keil (1857-1880), or the more recent editions of individual works cited in the present work or in the bibliographies of Wright (1976), (1981) and especially (1982) and, of course, Law (1982). The aspects of these traditions made familiar to the Anglo-Saxons and the Irish when they were learning Latin are described in Law (1982) and (1983); see also §4.4.2 above for information specific to the Anglo-Saxon situation. In that Section, mention was made of a

passage in Book III of Martianus Capella's *De nuptiis Philologiae et Mercurii.* Although the author's treatment of the subject is superficial, this part-text is important because it is the only one dealing explicitly with the relationship between writing/spelling and phonology (more precisely 'pronunciation') that is known, cf. Wright 1982: 100, to have circulated in England (perhaps just the North - cf. Law 1982: 29) in the period when the Anglo-Saxons were learning to read and write Latin - the Mercian Tatwine used it in his Latin grammar the *Ars Tatuini,* c. before 700. In addition to discussing matters like the division of letters into vowels and consonants and the latter further into semi-vowels and mutes, the syllable, etc., (cf. above), it backs up the idea that the Anglo-Saxons were taught to approach spelling (at first Latin then Old English) in a primarily phonemic way - cf. also below on *littera, nōmen and potestās.* The passage of most relevance is given below in the original Latin, (cf. Willis's 1983 edition of the *De nuptiis,* pp. 68-69, reproduced exactly here with the exception of the use of bold type and italics where they occur and the replacement of *v* by *u* for the sake of greater fidelity to the original); this is followed by Stahl, Johnson and Burge's translation of it into English (1977: 75):

> Namque **A** sub hiatu oris congruo solo spiritu memoramus;
> **B** labris per spiritus impetum reclusis edicimus;
> **C** molaribus super linguae extrema appulsis exprimitur;
> **D** appulsu linguae circa superiores dentes innascitur;
> **E** spiritus facit lingua paululum pressiore,
> **F** dentes labrum inferius deprimentes,
> **G** spiritus cum palato;
> **H** contractis paululum faucibus uentus exhalat,
> **I** spiritus prope dentibus pressis.
> **K** faucibus palatoque formatur.
> **L** lingua palatoque dulcescit.
> **M** labris imprimitur.
> **N** lingua dentibus appulsa collidit.
> **O** rotundi oris spiritu comparatur.
> **P** labris spiritus erumpit,

Q appulsu palati ore restricto.
R spiritum lingua crispante corraditur.
S sibilum facit dentibus uerberatis.
T appulsu linguae dentibusque impulsis extunditur.
U ore constricto labrisque prominulis exhibetur.
X quicquid *C* atque *S* formauit exsibilat.
Y appressis labris spirituque procedit.
Z uero idcirco Appius Claudius detestatur, quod dentes mortui, dum exprimitur, imitatur [*sic*].

Translation (as Stahl *et al*, except the italicisation and comment in [ ] which are mine):

We utter **A** with the mouth open, with a single suitable breath.
B We make *B* by the outburst of breath from closed lips.
C is made by the back teeth brought forward over the back of the tongue.
D is made by bringing the tongue against the top teeth.
E is made by a breath with the tongue a little depressed.
F is made by the teeth pressing on the lower lip.
G by a breath against the palate.
H is made by an exhalation with the throat a little closed.
I is made by a breath with the teeth kept close together.
K is made with the palate against the top of the throat.
L is a soft sound made with the tongue and the palate.
M is a pressing together of the lips.
N is formed by the contact of the tongue on the teeth.
O is made by a breath with the mouth rounded.
P is a forceful exhalation from the lips.
Q is a contraction of the palate with the mouth half-closed.
R is a rough exhalation with the tongue curled against the roof of the mouth.
S is a hissing sound with the teeth in contact.
T is a blow of the tongue against the teeth.
U is made with the mouth almost closed and the lips forward a little.
X is the sibilant combination of *C* and *S*.
Y is a breath with the lips close together.
Z was abhorrent to Appius Claudius, because it resembles in its expression the teeth of a corpse [*sic*].

Wright (1982: 101) comments that "without accompanying demonstrations these prescriptions would have been insufficient to specify the exact sound". This is true to an extent - the distinction voiced and voiceless is not mentioned for instance and the description accompanying *B* does not make clear the fricative *versus* stop distinction. Despite this, however, these descriptions, apart perhaps from that for *Z*, bear a rough and ready resemblance to what has been reconstructed of the Imperial Latin/Early Romance vowel and consonant systems - cf. below §§5.2.2 and 5.2.3.

Turning once again to the question of Anglo-Saxons learning to write and spell Latin, grammars of a different kind should now be considered. The mainstay of the Latin grammatical tradition known to the Anglo-Saxons was the grammar written by Donatus (cf. §4.4.2 above). Donatus's *Ars Minor* and *Ars Maior* and works offsprung from it that the Anglo-Saxons used when learning Latin did not only contain information on, and paradigms of, the eight parts of speech. Information essential for learning how to write and spell Latin was also included in the form of delineation and brief discussion of the concepts *littera* 'a letter of the alphabet' (further defined, by, for instance, Priscian, as 'the smallest part of articulate speech'), *nōmen* 'the name of the letter' (on these, see Gordon, 1973: *passim*), *figūra* 'the written shape of the letter' and *potestās* 'the phonetic value represented by the letter' (cf. Robins 1979: 56). So, for example:

(62)

T = *figūra*
tē = *nōmen*, from the sound of its initial letter
/t/ = *potestās*, is derived.

That these basic concepts were known to and employed by the Anglo-Saxons when they wrote - even before they became literate in Latin - is evident from runic usage (the concepts may, for all that, have derived ultimately from the Latin tradition, though, so far as we know, without the terminology). This operated, as did the Latin system just described, on an acrophonic principle according to which each rune symbol had a name whose initial sound segment indicated its phonetic value (see King, 1986: 43-45). For instance:

(63)

ᛗ = *figūra*
man = *nōmen*, from the sound of its initial letter
/m/ = *potestās*, is derived.

The same concepts, together with their Latin terminology this time, were used by the Anglo-Saxons in their own handbooks for teaching Latin (on these, cf. §4.4.2). This much is suggested by, for example, the organisation of Bede's *De Orthographia* (ed. Jones 1975) by *litterae*, as well as being evidenced by his 'Preface' on the individual letters of the alphabet and in comments made on spelling~sound correspondences by him and by, for instance, Alcuin in his *Alcuini Orthographia* (ed. Marsili 1952) - on these see Wright (1982: 102, 105-112) and Wright (1981: 345-352). Further, Bede begins his *De Arte Metrica* (ed. Kendall and King 1975) with a section entitled *De Littera*, in which he describes (cf. the discussion of the Irish *Auraicept na nÉces* above) the division of the Roman-letter alphabet into vowels (later differentiated into vowels, i.e., monophthongs, and diphthongs) and consonants (classified into semi-vowels and mutes on the same basis as the Irish *Auraicept*).

5.1.2.3 Principles and Practice

It can be assumed, on the basis of the preceding discussion of practice

with regard to the teaching and learning of reading (aloud) and writing Latin, that these concepts - of *figūra, nōmen* and *potestās* - with or without Latin terminology and the principles they informed, were applied also in, and to, the manuscript writing of Early Old English. In all likelihood, the procedure for reducing Early Old English to writing was dictated by the essentially phoneme-based approach to the analysis of Early Old English speech implicit in the native, Germanic procedure for writing in runes (a procedure confirmed and extended, as illustrated above, by the non-native, but identical, approach to the speaking and writing of Latin learned by the Anglo-Saxons after the conversion to Christianity).

An essentially phoneme-based approach to writing is, then explicit and implicit in the practices just described. This is matched by the evidence of spelling practice put forward earlier at §3.4.1 . There it was shown that, while the Old English spelling system sometimes operated at an allophonic level, i.e., on a principle whereby one graph/digraph correlated with one allophone, and that, occasionally, it was not motivated by either of these considerations, ultimately, the system, like the one used for writing Latin which served as its model, functioned, with regard to the representation of phonological units, basically at a phonemic level, i.e., on the principle that one graph/digraph correlated with one phoneme, (cf. also King: In Press, §3.2). When these findings with regard to Anglo-Saxon attitudes towards writing and their practice of writing (whether in Latin or in Old English) are compared with the conclusions of §5.1.2.1 (namely, that while phonemes do seem to be perceivable as primary or basic phonological units, they also function and are perceived to function as

segmental constituents of syllables or word forms), the two sets of conclusions seem to be at odds with each other. This disagreement is, however, more apparent than real. The writers of Latin, Hiberno-Latin or Old Irish and Old English were, it seems, well aware of the syllable as a phonological unit. The Late Latin grammarians Donatus, Priscian and Martianus Capella (cf. §4.4.2 and §5.1.2.2 above and also Law 1982: 15, 20, 23) all deal with the syllable (*syllaba*). It is treated also in Irish grammars such as that known as the *Quae sunt quae omnem ueritatem scripturae commendant* (cf. §4.4.2 above) and that of the supposed Irishman Virgilius Maro Grammaticus (cf. Law 1982: 86, 43), as well as in the *Auraicept na nÉces* (ed. Calder 1917), e.g., pp. 95, 97, 111, 113-117. Bede in his *De Arte Metrica* (ed. Kendall and King 1975) devotes seven out of the twenty-five sections which make up the work to description and discussion of the syllable. This awareness of the syllable, aside from the obvious need for understanding of the concept of the syllable for writing verse, could perhaps be said to find expression in the writing of Latin, Old Irish and Old English in the (quasi-)syllabismic use of abbreviations in Insular manuscripts such as *sc* for Latin *sicut* 'as/just as' or *tm* for Latin *tamen* 'however/nevertheless/notwithstanding' (two examples of syllabic suspension) or *·t·*, (a plain contraction) for Old Irish *trá* 'now/therefore/then', or, in relation to the writing of Old English, a vowel graph with superscript diacritic, like *ū̃* for the OE Dative Plural Noun inflection which would be written out in full as *-um* or crossed *þ* for *þæt* 'the/that' (see Garman 1990: 32-35 for parallels in the use in syllabaries - writing systems based on the syllable unit of the spoken language, like that used for writing Kannada - of symbols representing sequences

similar to the two exemplified here - CV, CCV and VC; for the abbreviations, see, respectively, Lindsay 1915: §367 and *passim;* Lindsay 1910: 72 and *passim* and Thurneysen 1980: §§35, 901. In addition, for what it is worth in the present context, Parkes (1987: 21) reports instances of copying syllable by syllable in the supply leaves produced by Anglo-Saxon scribes to replace leaves missing from Abbess Cuthswith's copy of *Jerome.* The solution to this apparent puzzle of the existence and perception of the syllable on the part of the scribes who wrote Latin, Hiberno-Latin and Old Irish, and Old English, but the overwhelming evidence that the spelling systems they wrote with seem to have been organised and used according to a phonemic, rather than a syllabic, principle may lie in Linell's observation (1979: 69) that the ability to analyse words into phonemic segments "is probably *partly* a result of .... traditions .... of alphabetical writing" and of learning to read and write. He goes on (p. 197 and fn. 41) to say that while "it seems plausible that the core of the native speaker's phonological competence will remain largely unaffected by his becoming literate" at the same time "it seems quite improbable that phonological knowledge remains completely unaffected by the process of the speaker's becoming literate". Various literacy studies have suggested that phonemic segmentation is a skill learnt when speakers learn to read and/or when they are taught to spell and that, conversely "low segmentation skill seems to be a highly reliable predictor of severe reading disability" (Derwing *et al* 1986: 60-61; see also Linell 1979: 68-69). This means, then, that "the phoneme may be an artifact of learning an alphabetic orthography, rather than the reverse" (Derwing *et al* 1986: 61 and see also Derwing and Dow 1987). On the other hand though, "exposure to

an alphabetic orthography [like that used for writing Old English] can be construed as tantamount to a kind of 'specialised training' that focuses [pupils'] attention onto something that [they] may have long used, but seldom, if ever, reflected upon previously" (Derwing *et al* 1986: 63). Both points of view have merit. One way out of this chicken-and-egg situation might well be simply to note that, of the writing/spelling systems available (ideographic systems, syllabaries, 'mixed' systems - like Japanese - and alphabetic/phonographic - cf. Garman 1990: 25-38), a phoneme-based spelling system is the most economic, practical, and efficient from the point of view of number of symbols required, of relative fidelity to representation of speech and of relative ease of encoding for the writer and decoding for the reader. These factors, plus that of tradition, may be all that is needed to explain the apparent use of the alphabetic Roman-letter based systems for writing manuscripts containing Latin, Hiberno-Latin, Old Irish and, most importantly in the present context, Old English.

5.2 *ABCs: THE 'SUPPLY' FROM LATIN*

5.2.1 *Introduction*

The following Figures plotting the reconstruction of the Early Romance vowel and consonant systems contain only phonemes and primary/major allophones produced by sound changes which increased or decreased the antecedent Imperial Latin and Classical Latin systems. Changes which resulted generally in a much greater or lesser lexical incidence of a particular phoneme are also represented, since this information is potentially of interest in the present context of 'TLFL'. Comments, corresponding to the superscript numbers in the Figures are located just

after the Figures. This concentration upon phonemes and major allophones is justifiable also in the light of previous discussions in Ch. 3 and in the Sections preceding this one in the present Chapter of the spelling (and/or writing) habits of scribes of Latin, Old Irish and especially Old English and of the grammatical tradition which informed them.

The following works have been consulted in the preparation of all the Figures detailing the Latin sound systems and the Comments accompanying them (they have been used because they were readily accessible and because I have been unable to find, indeed am unaware of the existence of, any book or article(s) which use appropriate notation (IPA symbols, etc. - cf. Preface) and which, at the same time, detail the phonological evolution of vowels and consonants from Classical Latin to Early Romance, as well as the spellings which accompanied the evolution - both of crucial importance in the present context of the origins of the Old English spelling system): Agard (1984); Allen (1965); Auerbach (1961); Bec (1971); Boyd-Bowman (1980); Elcock (1975), Ewart (1943); Grandgent (1908); Haadsma and Nuchelmans (1963); Harris (1988a and b); Kent (1945); Lindsay (1894); Mendeloff (1969); Palmer (1961); Pei (1941); M. K. Pope (1934); Price (1984b); Sturteyvant (1940); Väänänen (1963); Vincent (1988a and b) and Wright (1982). The reports in these works vary depending upon the viewpoint of the author or the time when he or she was writing or the function each work was designed to fulful (some deal only briefly and generally with the main points of one or more stages of Latin phonology and orthography; others focus on the development of a particular regional variety such as French or Italian; most are deficient in the use of notation, italics or capital letters with

no particular function ascribed to them being the preferred means of expression of information on phonology and/or spelling). The account given here is therefore abstracted and adapted from the works just cited, to accord with phonological acceptability, fidelity to the written evidence and fitness for present purposes. It is not intended to be comprehensive. Information on Classical or Imperial Latin or Early Romance sound values not treated here, and information on the sound changes which produced or affected them, other than that provided here, should therefore be sought in the relevant sections of the works listed.

The linguistic labels used throughout this Chapter (indeed throughout the whole work) have been described already (at §3.4.1, Principle 2 and §4.2); a little more information now follows:

Imperial Latin: the chosen point of description is c. 400.

Early Romance: the next, post-Imperial stage in the evolution of the Romance languages. As stated at §3.4.1, only the languages of Rome and Gaul are treated (though these were probably not especially different from each other - perhaps in a way similar to modern-day dialects of the same language). Although the period covered is c. 6th century to c. 8th century, description is focussed on c. 650 to c. 750 A.D. because this is the period when the Anglo-Saxons were learning to read and write Latin (cf. §4.2 ff. above) and then Old English. To the information given there can be added the consideration that the *Ars Tatuini,* the *Ars Bonifacii,* Aldhelm's *De Metris* and *De Pedum Regulis* (both are metrical tracts) and Bede's grammatical works - cf. §5.1.2.2 - date from around 700 A.D. (Law 1982: 8).

Explanatory Footnotes for each Figure follow after the last of the Figures depicting Vowels and Consonants respectively.

5.2.2 *Latin Vowel Systems*

No phonemic vowel length contrast is evidenced consistently in the spelling of Latin vowels. Instances do occur of the use in early Latin inscriptions of double vowel graphs to indicate long /a:/, /e:/, and /u:/, e.g., <paastores> (where <aa>:/a:/). Another method of indicating vowel length was to superscribe an 'apex' (shaped roughly like an acute accent) above the relevant vowel graph. Allen (1965: 64-65) describes both methods and the use of *I longa*. None of these methods was used routinely in the writing of Classical Latin, however. Our knowledge of a phonemic vowel length contrast in this period comes primarily from the existence of minimal pairs from which this can be deduced, e.g., *esse* 'to be', where the first <e> graph represents /e/ ≠ *esse* 'to eat', in which the first <e> graph represents /e:/ - see, e.g., Vincent (1988: 30) for further examples. This length contrast is lost by the Imperial Latin period - cf. §5.2.2.3 below and accompanying Notes.

5.2.2.1 Classical Latin

(64)

RECONSTRUCTED VOWEL SYSTEM FOR

CLASSICAL LATIN

Stressed Vowels

Short and Long Monophthongs	Diphthongs
/i(:)/, /y(:)/ /u(:)/	
/e(:)/ /o(:)/	/eu/ /oe/
[ɛ:]	
/a(:)/	/ae/ /au/

Unstressed Vowels

Short and Long Monophthongs	Diphthongs
/i(:)/ /u(:)/	
/e(:)/ /o(:)/	/oe/
[ɛ(:)]	
/a(:)/	/ae/ /au/

5.2.2.2 Imperial Latin

(65)

RECONSTRUCTED VOWEL SYSTEM FOR

IMPERIAL LATIN

Stressed Vowels

Short Monophthongs		Diphthongs
/i/	/u/	
/ɪ/	/ʊ/	
/e/	/o/	/eo/
/ɛ/	/ɔ/	
/a/		/au/

Unstressed Vowels and Diphthong

Diphthong Short Monophthongs		
/i/	/u/	
/e/	/o/	
/a/		/au/

5.2.2.3 Development of the Vowel System from Classical Latin to Imperial Latin

Segments given in the following Figure are phonemes, except where indicated to the contrary. Unless otherwise specified, the same output is found in Gaulish Imperial Latin and Italian Imperial Latin.

(Figure begins over)

(66) (a) STRESSED VOWELS[1]

Long Monophthongs:

CLASSICAL LATIN	IMPERIAL LATIN
y:[2] → i:	→ i
e: →	→ e
a: →	→ a
o: →	→ o
u:[2] →	→ u

Short Monophthongs:

CLASSICAL LATIN	IMPERIAL LATIN
y[2] → i	→ ɪ → i̯[3]
e →	→ ɛ → i̯[3]
a →	→ a
o →	→ ɔ → u̯[3]
u[2] →	→ o → ɷ → u̯[3]

Diphthongs[4]:

CLASSICAL LATIN	IMPERIAL LATIN
oe →	→ e
ae → ɛ: →	→ ɛ
eu[6] →	→ eo
au →	→ au[5] → ɔ: → ɔ

(66) (b) UNSTRESSED VOWELS[7]

Long Monophthongs:

CLASSICAL LATIN	IMPERIAL LATIN
i: →	→ i
e: →	→ e
a: →	→ a
o: →	→ o
u: →	→ u

Short Monophthongs:

CLASSICAL LATIN	IMPERIAL LATIN
i →	→ i[8] / → i[9] (i̯)
e →	→ e / → i[9] (i̯)
a →	→ a
o →	→ o / → u[9] (u̯)
u →	→ u / → u[9] (u̯)

Diphthongs[4]:

CLASSICAL LATIN	IMPERIAL LATIN
oe →	→ e
ae → ɛ: →	→ ɛ
au →	→ au[10] / → o / → a

5.2.2.4 Explanatory Notes to Figures (66a) and (66b)

1. Two important changes affected the stressed vowel system between the Classical and Imperial Latin periods. The quantitative distinctions which had characterised the Classical Latin vowel system gave way to quality-based distinctions in Imperial Latin (see Spence 1972 where possible reasons for this changeover are discussed). The possibility should at this point be noted that quality distinctions may already have existed in

the Classical Latin period - cf., e.g., Vincent's vowel chart (1988a: 31, Figure 2.1). The second change consisted of shifts of accent (on these, see, for example, Elcock 1975: 37, 51-55). These resulted in:

(a) vowels which had been unstressed in Classical Latin becoming stressed in Imperial Latin, e.g., CL proparoxytone *íntegrum* 'whole' → IL paroxytone *intégrum* (cf. P-d Fr *entier* where the diphthong in the second syllable must derive from an Imperial Latin stressed vowel - see Figure (68a) below and the Explanatory Notes accompanying it; and

(b) Classical Latin stressed vowels becoming unstressed in Imperial Latin, as in trisyllabic verbal forms with a prefix, e.g., CL *récipit* 'he/she/it takes back' → IL *recípit.* Further instances would include words where a high or mid, back or front vowel, stressed in Classical Latin, occurred in hiatus with another vowel and became, in Imperial Latin, unstressed and non-syllabic ([i̯] or [u̯]), then consonantal (cf. Note 4 under).

The lexical incidence of all of the stressed vowel phonemes in Imperial Latin was therefore affected to some extent in consequence of these changes and the lexical incidence of the consonants [j] and [w] was increased (on these consonants, see §5.2.3.1 below, Notes 7 and 8).

2. /y(:)/ were marginal phonemes in Classical Latin - they existed only in loanwords which had been borrowed from Green, like *nympha* 'nymph', or *symbolus* 'token/sign' (cf. Allen 1965: 52-53, as well as the remarks of Quintilian, cited by Sturteyvant 1940: §126.d). The phoneme, spelt ⟨y⟩, was confined to 'educated' usage (cf. Allen *ibid.*). Both the phones and the graphs which represented them were 'learned' innovations from Greek during the Classical Latin period (see the contemporary, or near-contemporary comments of, e.g., Cicero, Terentius Scaurus and Caper, quoted by Sturteyvant 1940: §127). Native Latin /u(:)/:⟨u⟩ had previously been substituted in loanwords with Greek /y(:)/:⟨y⟩ - cf. Sturteyvant 1940: §127) and these naturalised pronunciations and spellings were retained in 'popular' usage in the Classical period (cf. Allen 1965: 52-53). As a result of these two alternative usages, the original Greek vowels /y(:)/ developed in different ways in Latin. The 'popular' Classical period reflexes /u:/ and /u/ gave Imperial Latin /u/ and /ω/ respectively (cf. Sturteyvant 1940: §128). 'Educated' Classical Latin /y(:)/ continued as /y(:)/ until the influence of some early Imperial Latin borrowings from Greek with the reflex /i(:)/ (← /y(:)/ by a Greek sound change of around the 2nd or 3rd century A.D. - cf. Sturteyvant 1940: §36) caused the /y(:)/ of many of the earlier, Classical Latin period, loanwords to be unrounded to /i(:)/, cf. Allen 1965: 53. Hence, 'educated' Classical Latin /y:/ developed, with Classical Latin /i:/, to Imperial Latin /i/; similarly /y/ developed to /i/ and then, with Classical Latin /i/, to /ɪ/.

3. As outlined briefly at 1. above, these non-syllabic segments, front [i̯] and back [u̯], were derived respectively from the Classical Latin short front syllabics, high /i/ and mid /e/, and the short back ones, high /u/ and mid /o/ when these occurred in hiatus with another short vowel as a result of an accent

shift from the first to the second vowel. This change affected the front vowels /i/ and /e/ if the vowel following was a back vowel - high /u/ or mid /o/, the central low vowel /a/ or the front mid vowel /e/. In the case of /u/ and /o/, if the vowel following was a front one - high /i/ or mid /e/ - or the central low vowel /a/, then /u/ and /o/ were affected by this change too. Väänänen (1963: §75), on the basis of innovative word spellings, containing graphs for unetymological epenthetic high vowels, found in the inscriptions at Pompeii (dating from c. 79 A.D.), suggests that the developments /i/ or /e/ → [i̯] and /u/ or /o/ → [u̯] may have involved the insertion of glides, [j] and [w] respectively, to facilitate transition from the first to the second of the vowels in hiatus. Presumably, though Väänänen does not say this, the syllabic segments /i/ or /e/ on the one hand, and /u/ or /o/ on the other, would then have been lost due to syncope when they became unstressed - unstressed vowels in word-medial position immediately following a stressed syllable were most liable to be lost in Imperial Latin - see, for instance, Grandgent (1908: §§219, 231-239). The Classical Latin sequences, and examples of words containing them, which could be affected by this change were therefore as follows:

/i/ + /a/, e.g., ***cardiacus*** 'suffering from a disease of the stomach';
/i/ + /u/ (a rare combination in Latin) but, e.g., ***aliubi*** 'in some other place/elsewhere';
/i/ + /o/, e.g., ***fīliolus*** 'little son';

/i/ + /e/, e.g., ***mulierem*** 'woman (Acc Sg)';

/e/ + /a/, e.g., ***eadem*** 'same (Fem Nom Sg)';

/e/ + /u/, e.g., ***eunt*** 'they go';

/e/ + /o/, e.g., ***linteolum*** 'small linen cloth';

/u/ + /a/, e.g., ***fuam*** 'I should be';

/u/ + /i/, e.g., ***fatuitās*** 'folly';

/u/ + /e/, e.g., ***puer*** 'child';

/o/ + /a/ (again rare in Latin), but, e.g., ***coalō*** 'to coalesce';
/o/ + /e/, e.g., ***coeō*** 'to come together/assemble'.

In some cases, /i/ and /u/ in hiatus were lost, rather than developing to [i̯] and [u̯] after the stress shift, see, for instance, Pei (1941: §42); Grandgent (1908: §§136, 137); Väänänen (1963: §§50, 79-80). Because no new spellings were standardly substituted for the old, it is not possible to tell synchronically whether these new non-syllabics [i̯] and [u̯] were vocalic or consonantal. Their later development - closure to [j] and [w] respectively, followed by coalescence with

preceding consonants in some cases to form palatalised consonants - is, however, consistent with consonantal status and their further evolution is, accordingly, dealt with below.

4. In Classical Latin, diphthongs, stressed and unstressed, were falling ones.

5. While the diphthong /au/ monophthongises in some areas, it seems to have remained until the Imperial Latin stage in those areas of present concern, designated broadly as now French- or Italian-speaking. Some non-Roman, Italian dialects had, however, apparently as early as the 1st century B.C., monophthongised /au/ to /o:/. From this source, /o:/:<o> passed into Classical Latin in certain words, e.g., *cōda* ~ *cauda* 'tail', *cōdex* ~ *caudex* 'wooden tablet for writing on', *plōdere* ~ *plaudere* 'to applaud'. This /o:/ was shortened in Imperial Latin to /o/. For further details, see, for example, Grandgent (1908: §§211-213); Sturteyvant (1940: §§135-137).

The incidence of the diphthong /au/ was increased as a result of various changes. Only two, representative of these, will be outlined here: for information on others, the relevant Sections of the works listed at §5.2.1 should be consulted. The first - syncope of unstressed vowels in medial syllables (cf. again Grandgent 1908: §§219, 231-239) - altered syllable structure and, in this particular case, caused consonantal [u] (/w/) to cease functioning as a consonant and instead to function vocalically, within the syllable so that a diphthong /au/ was formed. Among items affected were CL *auidus* 'eager' and *dedicauit* 'he/she/it dedicated'. The change may be illustrated, in terms of the theory of syllable structure invoked earlier (in Ch.1), with regard to the first example *auidus*, thus: CL [[[a]]] [u[[i]]] [d[[u]s]] → IL [[[au]]]] [d[[ω]s]]. Another change which produced further instances of the diphthong /au/ was the loss of consonantal [u̯] (/w/) /V-u̯/ or in /V-ɣ/. /au/ resulted when the vowel preceding [u̯] was /a(:)/, e.g., CL *flāuus* 'reddish yellow' which became in Imperial Latin *flaus*, i.e., CL [flau̯us] → IL [flaus], cf. Väänänen (1963: §§62, 90).

6. This diphthong was rare. It is found in interjections like *heu* 'alas!', conjunctions like *neu* 'and not/nor' and Greek loanwords such as *euge* 'bravo!' or *europa* 'Europe'. By the 5th century, the second element had lowered to /o/, giving /eo/ - see Sturteyvant (1940: §§139-141). Thereafter, it "does not survive" according to Pei (1941: §50) and so does not appear in Figures below relating to the Early Romance period.

7. Unstressed vowels which had been long in Classical Latin as in, e.g., CL *fructūs* 'fruit (Gen Sg)', lost their length by the Imperial Latin period, in the same way as stressed vowels. The incidence of unstressed vowels was decreased by the Imperial Latin period because of changes like syncope, especially word-medially, /L-C or /C-L, e.g., IL *calda* ← CL *calida* 'warm water', cf., e.g., Elcock (1975: 42, 53); Mendeloff (1969: §9b). In addition, a few changes of quality, brought about by assimilation or dissimilation, rather than the general change mentioned at Note 9 below, took place. For details, see, e.g., Mendeloff (1969: §129 ff. - though with caution, because he seems to use *Vulgar Latin* indiscriminately to refer to both Imperial Latin and to Early Romance).

8. The incidence of /i/ in Imperial Latin was increased by the development of a prothetic /i/ before word-initial /s/ followed by a consonant (generally a voiceless stop /p,t,k/ or the voiced bilabial nasal /m/) - cf. Haadsma and Nuchelmans (1963: §32); Grandgent (1908: §230) or Elcock (1975: 37) - e.g., CL *schola* → IL ***ischola*** 'school' or CL *spīritum* → IL ***espiritu*** 'spirit (Acc Sg)'.

9. Parallel with the stressed vowel developments described at Note 3 above, unstressed Classical Latin /i/ and /e/ and /u/ and /o/, when not lost (cf. Pei 1941: §67; Pope 1934: §250; Haadsma and Nuchelmans 1963: §15) became non-syllabic [i] and [u] respectively when in hiatus with another vowel (/a(:)/, /u(:)/, o(:)/ in the cases of /i/ and /e/; /a(:)/, i(:)/, e(:)/ in the cases of /u/ and /o/). The further evolution of these segments will be dealt with under consonant developments. Classical Latin sequences which could be affected were therefore as now exemplified:

/i/ + /a/, e.g., ***filia*** 'daughter';

/i/ + /u/, e.g., ***līlium*** 'lily';

/i/ + /o/, e.g., ***dītior*** 'wealthier';

/e/ + /a/, e.g., ***uīnea*** 'vine';

/e/ + /u/, e.g., ***cāseus*** 'cheese';

/e/ + /o/, e.g., ***de-onerō*** 'to unload/disburden';

/u/ + /a/, e.g., ***continuat*** 'he/she/it continues';

/u/ + /i/, e.g., ***monuit*** 'he/she/it advised';

/u/ + /e/, e.g., ***arguet*** 'he/she/it will declare/prove';

/o/ + /a:/, e.g., ***co-āgulare*** 'to drive'

/o/ + /i/, e.g., ***co-itiō*** 'conspiracy/agreement';

/o/ + /e/, e.g., ***coerceō*** 'to force'.

10. Unstressed Classical Latin /au/ normally monophthongised to /o/ in Gaulish Imperial Latin, but to /u/ in Italian Imperial Latin, e.g., CL ***audīre*** 'to hear', cf. Present-day French ***ouir*** (with later diphthongal development) and Present-day Italian ***udire***. An exception to this is when Classical Latin /au/ occurred in pretonic syllables and was followed by stressed /u/ in the next syllable, in which context it developed to /a/ (e.g., CL ***augustum*** 'sacred/grand', cf. Present-day Italian ***agosto***, and Present-day French ***août***, both meaning 'August', - again with later diphthongal development). The change /au/ → /o/ is exemplified by CL ***auricula*** 'ear-lobe', cf. Present-day reflexes French ***oreille*** 'ear' and Italian ***orecchio*** 'ear'.

5.2.2.5 Early Romance

(67)

RECONSTRUCTED VOWEL SYSTEM FOR EARLY ROMANCE

Stressed Vowels

Short Monophthongs		Diphthongs	
/i/,/y/	/u/	[ie]	[uo]
/e/	/o/	[ei]	[ou]
/ɛ/ /ɔ/			
/a/		[ai]	/au/

Unstressed Vowels

Short Monophthongs

/i/	/u/
/e/	/o/
/ə/	
/a/	

5.2.2.6 Development of the Vowel System from Imperial Latin to Early Romance

Segments given in the following Figure are phonemes, unless otherwise specified. The same output is found in Gallo-Romance and Italo-Romance except when indicated to the contrary.

(Figure begins over)

(68) (a) STRESSED VOWELS

Monophthongs:

IMPERIAL LATIN		EARLY ROMANCE
i	→	→ i
ɪ	→	⌐→ i[1] └→ e → [ei][2]
e	→	⌐→ e ├→ [ei][2] └→ i[3]
ɛ	→	⌐→ [ei][2] ├→ ɛ └→ [ie][4]
a	→	⌐→ a └→ [ai][5]
ɔ	→	⌐→ ɔ └→ [uo][6]
o	→	⌐→ o └→ [ou][7]
ω	→	⌐→ o[1] ├→ u └→ y
u	→	⌐→ u[8] └→ y[9]

Diphthong:

IMPERIAL LATIN		EARLY ROMANCE
au	→	⌐→ au[10] └→ ɔ: → ɔ

(Figure (68b) over)

(68) (b) UNSTRESSED VOWELS

Monophthongs:

IMPERIAL LATIN		EARLY ROMANCE
i	→	┌→ e[8] ├→ i[8,11] └→ ə[11]
e	→	┌→ i[12] ├→ e[8] └→ ə[11]
a	→	┌→ a[11] └→ ə[11]
o	→	┌→ u[13] ├→ o[8] └→ ə[11]
u	→	┌→ o[14] ├→ u[8] └→ ə[11]

5.2.2.7 Explanatory Notes to Figures (68a) and (68b)

1. In Italo-Romance, there was "a tendency" according to Pei (1941: §48) for /ɪ/ → /i/ and for /ω/ → /o/ in the following contexts: /-{n}{C [+ velar] } or /-{n} {l}{C [+ palatal]} or {λ}, e.g., CL *lingua* 'tongue' where ⟨i⟩:/i/ → IL *lingua*, where ⟨i⟩:/ɪ/ → IR *lingua*, where ⟨i⟩:/i/ or CL *fungus* 'mushroom' → IR *fungo*, where ⟨u⟩:CL /u/ (which developed to IL /ω/) and ⟨o⟩:IR /o/.
2. The falling diphthong [ei] developed only in Gallo-Romance from IL /e/ or /ɛ/ (including the reflex /ɛ/ of IL /a/ which had developed previous to this - cf. Pope 1934: §§231-232, 414, 427) when they occurred in an open syllable or in a monosyllabic word, even when closed by a single consonant, e.g., CL *mē* → GR *mei* 'me (Acc Sg)' or CL *fidem* → GR *feit* 'faith (Acc Sg)'. The diphthongisation of IL /e/ or /ɛ/ was prevented when it occurred before or after a palatal consonant, or was followed by a nasal consonant; cf. Pope (1934: §§225-228, 231, 403-404).
3. This development took place only in Gallo-Romance and only if a palatal or palatalised consonant preceded /e/, e.g., CL *placēre* 'to please' where ⟨ē⟩:/e:/ → IL /e/ → GR /i/ /t's -, cf. Present-day French *plaisir;* for the consonant development, see Figure (74) below; for that of the vowel, see Pope (1934: §§225-228, 418-419).
4. This falling diphthong [ie] developed in both Gallo- and Italo-Romance in open syllables and, in Gallo-Romance, also in the context of a following palatal consonant. In Italo-Romance, this diphthongisation was variable in occurrence and, where it did not take place, IL /ɛ/ remained, e.g., CL *caelum* 'sky' with

Modern Italian *cielo* and Modern French *ciel;* see Pei (1941: §§45, 47) and Pope (1934: §§225-228, 410).

5. /a/ diphthongised to [ai] only in Gallo-Romance in the context of a following non-syllabic [i], or a following nasal consonant /n/ or /m/ - cf. Pope (1934: §§403-404, 427), e.g., CL *magis* 'rather/to a greater extent', cf. Modern French *mais* 'more' or CL *sanctum* 'holy/sacred', cf. Modern French *saint.*

6. In the same context and with the same provisos given at Note 4 above, the falling diphthong [uo] developed in both Gallo- and Italo-Romance, e.g., CL *mouet* 'he/she/it moves', cf. Modern-day Italian *muove* and Modern-day French *meut* (this last form contains one of the reflexes - /ø/:<eu> - of ER /uo/); cf. Pei (1941: §§45, 47) and Pope (1934: §§225-228, 403, 410).

7. In the same context described at Note 2 above, the diphthong [ou] ← IL /o/ developed in Gallo-Romance, but not in Italo-Romance; compare, e.g., CL *flōrem* 'flower (Acc Sg)' with Modern French *fleur* (where <eu>:/eu/ ← GR /ou/. A preceding or following palatal consonant prevented this diphthongisation, as it did that of IL /e/ - cf. Note 2 above; see Pope (1934: §§225-232, 403-404).

8. In Italo-Romance only.

9. in Gallo-Romance only IL /u/ → /y/ by an isolative sound change, which meant that there was no vowel /u/ in the Proto-French vowel system until the 11th/12th-century when /o/ was raised to /u/ - cf. Pope (1934: §§183-184).

10. This diphthong, cf. Note 5 at §5.2.2.4, in Gallo-Romance did not monophthongise until near the end of the Early Romance period, see Pope (1934: §505).

11. In Gallo-Romance only; cf. Pope (1934: §§248-264, especially §251); in the latter paragraph, Pope describes how only /a/, of the five Imperial Latin unstressed vowels retained its quality in Gallo-Romance (though only in certain contexts). Normally the Imperial Latin unstressed vowels were either lost or developed to /ə/, predominantly spelt <e> in Gallo-Romance, though, according to Vielliard (1927: 29-30) the reflex of Classical Latin unstressed /i:/ (/i/? or /ə/?) continued to be spelt with <i> except in the final syllables of words, or in instances of dissimilation when <e> is used. See further Note 19 at §5.2.2.9 below.

12. /e/, in common with the other unstressed Imperial Latin vowels, tended to retain its quality in Italo-Romance when in the final syllable of a word (cf. Pei 1941: §53). When in the first syllable of a word, however, in some instances (e.g., /-/r/), /e/ remains, instead of developing to and merging with /i/, e.g., *periglio* 'danger', cf. *migliore* 'better/best' - cf. Pei (1941: §55 and his Footnote 8).

13. Unstressed /o/ often develops to and merges with /u/ in Italo-Romance, rather than remaining (the latter is "the more normal development" claims Pei - see the reference which follows). The change to /u/ seems to occur frequently when /i/ is in the following syllable, so, e.g., *cucina* 'cooking/kitchen', cf. *corona* 'crown/wreath'; see Pei (1941: §55 and his Footnote 9).

14. Normally, in Italo-Romance, unstressed /u/ remained in the first syllable of words, but occasionally it developed to and merged with /o/ (cf. Pei 1941: §55), e.g., *lucente*

'shining/sparkling' or *frumento* 'wheat', cf. the Old Italian form of the latter example, *fromento.*

5.2.2.8 The Spelling of Vowels from Classical Latin to Early Romance

(69)

RECONSTRUCTED VOWEL SYSTEM AND SPELLINGS[1] FOR CLASSICAL LATIN

Stressed Vowels

Monophthongs			Diphthongs	
/i(:)/ <*i*>	/y(:)/ <*y*>	/u(:)/ <*u*>		
/e(:)/ <*e*>, <*oe*>[2]		/o(:)/ <*o*>	/eu/ <*eu*>	/oe/ <*oe*>
[ɛ:] <*e*>[3], <*ae*>[4]				
	/a(:)/ <*a*>		/ae/ <*ae*>, <*e*>[3]	/au/ <*au*>

Unstressed Vowels

Monophthongs			Diphthong	
/i(:)/ <*i*>		/u(:)/ <*u*>		
/e(:)/ <*e*>		/o(:)/ <*o*>		/oe/ <*oe*>
[ɛ(:)] <*e*>[3], <*ae*>[4]				
	/a(:)/ <*a*>		/ae/ <*ae*>, <*e*>[3]	/au/ <*au*>

(Figure (70) begins over)

(70)

RECONSTRUCTED VOWEL SYSTEM AND SPELLINGS FOR IMPERIAL LATIN

Stressed Vowels

Short Monophthongs		Diphthongs
/i/ ⟨i⟩, ⟨y⟩[5]	/u/ ⟨u⟩, ⟨y⟩[5], ⟨o⟩[6]	
/ɪ/ ⟨i⟩, ⟨e⟩[7]	/ʊ/ ⟨u⟩, ⟨o⟩[6]	
/e/ ⟨e⟩, ⟨i⟩[6], ⟨oe⟩	/o/ ⟨o⟩, ⟨u⟩[6]	/eo/ ⟨eo⟩
/ɛ/ ⟨e⟩, ⟨ae⟩[8]	/ɔ/ ⟨o⟩	
/a/ ⟨a⟩		/au/ ⟨au⟩

Unstressed Vowels and Diphthong

Short Monophthongs		Diphthong
/i/ ⟨i⟩, ⟨e⟩[10]	/u/ ⟨u⟩	
/e/ ⟨e⟩, ⟨i⟩[10]	/o/ ⟨o⟩	
/a/ ⟨a⟩		/au/ ⟨au⟩, ⟨a⟩[11]

(Figure (71) begins over)

(71)

RECONSTRUCTED VOWEL SYSTEM AND SPELLINGS FOR EARLY ROMANCE

Stressed Vowels

Short Monophthongs			Diphthongs	
/i/	/y/	/u/	/ie/	/uo/
⟨i⟩,⟨e⟩[12]	⟨u⟩,⟨i⟩[13]	⟨u⟩[14], ⟨o⟩[15]	⟨ie⟩	⟨uo⟩
/e/		/o/	/ei/	/ou/
⟨e⟩, ⟨i⟩[17]		⟨o⟩, ⟨u⟩[16]	⟨ei⟩	⟨ou⟩
/ɛ/		/ɔ/		
⟨e⟩, ⟨ae⟩[3, 4]		⟨o⟩		
/a/			/au/	
⟨a⟩, ⟨ai⟩[18]			⟨au⟩	

Unstressed Vowels

Short Monophthongs

/i/	/u/
⟨i⟩[19]	⟨u⟩[19]
/e/	/o/
⟨e⟩[19]	⟨o⟩[19]
/ə/	
⟨e⟩	
/a/	
⟨a⟩, ⟨e⟩[20]	

5.2.2.9 Explanatory Notes to Figures (69) to (71)

1. Vowel length was not normally marked in Classical Latin (cf. §5.2.2 above); length macrons have not therefore been superscribed on vowel graphs in Figure (69) or in the Notes here relating to it.
2. ⟨oe⟩ seems to be an innovative, back spelling for /e(:)/ reflecting the /oe/ → /e:/ development that took place later on in the Classical Latin period, cf. Figure (66a) above; see Sturteyvant (1940: §138b); Vielliard (1927: 42-43).

3. ⟨ae⟩ appears to be a direct, innovative spelling for [ɛ:] ← /ae/, cf. Sturteyvant (1940: §§131-134); Vielliard (1927: 38-41), as well as Note 8 below.
4. Innovative, indirect (back) spelling, cf. the preceding Note.
5. Innovative spellings reflecting the development of /y(:)/ in Imperial Latin - see Note 2 at §5.2.2.4.
6. Apparently innovative, back spellings reflecting the lowering and centralising of CL /u/ → IL /ω/ (cf. Figure (66a) above) - the choice of graph might have been decided by the fact that the new phone /ω/ was now nearer the quality of /o/, traditionally spelt ⟨o⟩, than /u/, traditionally spelt ⟨u⟩, cf. Notes 15 and 16 below.
7. See Sturteyvant (1940: §§116b-c).
8. Innovative, back spelling ⟨ae⟩ due to merger of IL /ɛ/ ← CL /e/ and IL ɛ/ ← CL /ae/ - see further Sturteyvant (1940: §§131-134) and Figures (66a) and (68a).
9. See Vielliard (1927: 42).
10. Although these are spellings for unstressed vowels, and unstressed vowels seem not to have changed in quality between the Classical Latin and Imperial Latin periods, the spellings here have apparently been used on analogy with those arising from the stressed vowel developments referred to in Notes 12 and 17 below.
11. See Note 10 at §5.2.2.4 above and Vielliard (1927: 41).
12. The use of ⟨e⟩ where ⟨i⟩ would be expected to represent ER /i/ is probably a result of spelling confusion brought about by the change of IL /ɪ/ outlined in Note 17 below.
13. The graph ⟨i⟩ is used only seldom to represent /y/ - cf. Vielliard (1927: 15).
14. The ⟨u⟩ graph is used in words with etymological CL /u:/ - cf. Vielliard (1927: 14-15).
15. CL /u/ → IL/ER /o/ (cf. Figure (66a) above), hence the graph ⟨o⟩ occurs as an innovative, back spelling for /u/ in Early Romance, cf. the next Note.
16. The graph ⟨u⟩ is used frequently to represent ER /o/ ← IL /o/ ← CL /u/ (CL graph ⟨u⟩). In Early Romance, this /o/ reflex remained unless it diphthongised to /ou/ - cf. Note 7 to Figure (68a) and Vielliard (1927: 13-14).
17. Vielliard (1927: 9) suggests that the ⟨i⟩ spellings for expected ⟨e⟩ are evidence of the transition of IL /e/ → ER /ei/. Given that IL /ɪ/ was an input to ER /e/ which itself developed to /ei/, this may be the case. Equally, however, given that the traditional spelling of /ɪ/ was ⟨i⟩ and that IL /ɪ/ → ER /e/, the ⟨i⟩ spellings she cites may simply be innovative, back spellings indicating the merger of IL /ɪ/ with /e/ (which developed further to /ei/ in the context described in Note 2 to Figure (68a)).
18. An innovative spelling given that in Early Romance /a/ → [ai] - cf. Note 5 in §5.2.2.7 above.
19. In many instances, unstressed vowel spelling practice in Gallo-Romance resembles fairly closely the alternation of stressed vowel graph spellings outlined in several of the preceding Notes and the Figures referred to therein, e.g., ⟨i⟩ for expected ⟨e⟩ and *vice versa* or ⟨u⟩ for expected ⟨o⟩ and *vice versa* - cf. Vielliard (1927: 18-37). It may be that spelling

practice with regard to stressed vowels influenced that with regard to unstressed vowels, in which case the ascertainment of the unstressed vowel qualities thus represented is rendered extremely difficult. Alternatively, the uncertainty evident in the spelling of unstressed vowels in Gallo-Romance may be attributable to a period of confusion in the representation of the unstressed vowels preceding their collapse in /ə/, as maintained by Pope - cf. Note 11, §5.2.2.7 and cf. Campbell (1959: §§368 -378) for similar situations in early and late Old English. In Italo-Romance, by contrast, the spelling ~ sound correlations given in Figure (71) seem to hold, cf. Notes 11, 12 and 14 at §5.2.2.7 above, but cf. Pei (1941: §52) which apparently contradicts what he says in §§53-55 - the paragraphs on which the claims rest which are made in Notes 11, 12 and 14 at §5.2.2.7 above.

20. In Gallo-Romance, the unstressed vowel /a/ seems, in certain contexts to have retained the quality /a/, which correlates with the use of the graph ⟨a⟩ and in others it was apparently reduced to /ə/, which correlates with the use of the graph ⟨e⟩ - cf. Note 11 at §5.2.2.7 above and Vielliard (1927: 16-17).

5.2.3 *Latin Consonant Systems*[22]

(72)

RECONSTRUCTED CONSONANT SYSTEM[1] FOR

CLASSICAL LATIN

Single Consonants

ARTICULATION Manner / Place		STOP	AFFRIC-ATE	FRIC-ATIVE	NASAL	LATERAL	TRILL	APPROXI-MANT
BILABIAL	- V	p, [ph][2]	.....	.....	.....	.....	.....	.....
	+ V	b			m			
LABIO-DENTAL	- V	.....	.....	f	.....	.....	.....	.....
	+ V			.....				
DENTAL	- V	t, [th][2]	.....	.....	.....	.....	.....	.....
	+ V	d			n	l[6]		
ALVEOLAR	- V	.....	.....	s	.....	.....	.....	.....
	+ V			.....			r	
PALATO-ALVEOLAR	- V	.....	.....	.....	.....	.....	.....	.....
	+ V							
PALATAL	- V	.....	.....	.....	.....	.....	.....	.....
	+ V							[j][7]
VELAR	- V	k, [kh][2]	.....	.....	.....	.....	.....	.....
	+ V	g			[ŋ][5]			
LABIAL-VELAR	- V	kw[3]	.....	.....	.....	.....	.....	.....
	+ V	gw[3]						[w][7]
GLOTTAL	- V	.....	.....	(h)[4]	.....	.....	.....	.....
	+ V			.....				

(73)

RECONSTRUCTED CONSONANT SYSTEM FOR IMPERIAL LATIN

Single Consonants

ARTICULATION Manner / Place		STOP	AFFRIC-ATE	FRIC-ATIVE	NASAL	LATERAL	TRILL	APPROXI-MANT
BILABIAL	- V	p	.....	.....	.....	.....	.....	.....
	+ V	b		β	m			
LABIO-DENTAL	- V	.....	.....	f	.....	.....	.....	.....
	+ V			.....				
DENTAL	- V	t	.....	.....	.....	.....	.....	.....
	+ V	d			n	l[6]		
ALVEOLAR	- V	.....	ts	s	.....	.....	.....	.....
	+ V		.....	.....			r	
PALATO-ALVEOLAR	- V	.....	.....	.....	.....	.....	.....	.....
	+ V							
PALATAL	- V	c	.....	.....	.....	.....	.....	.....
	+ V	ɟ						j[8]
VELAR	- V	k	.....	.....	.....	.....	.....	.....
	+ V	g		ɣ	[ŋ][5]			
LABIAL-VELAR	- V	kw[3]	.....	.....	.....	.....	.....	.....
	+ V	gw[3]						
GLOTTAL	- V	.....	.....	.....	.....	.....	.....	.....
	+ V							

(74)

RECONSTRUCTED CONSONANT SYSTEM FOR EARLY ROMANCE

Single Consonants

ARTICULATION Manner / Place		STOP	AFFRIC-ATE	FRIC-ATIVE	NASAL	LATERAL	TRILL	APPROXI-MANT
BILABIAL	- V	p						
	+ V	b		β	m			
LABIO-DENTAL	- V			f				
	+ V			v				
DENTAL	- V	t[9]						
	+ V	d[9]		ð	n[9]	l[14]		
ALVEOLAR	- V		ts[9]	s[9]				
	+ V		dz[9]	z[9]			r[9]	
PALATO-ALVEOLAR	- V		t͡ʃ	ʃ[11]				
	+ V		d͡ʒ					
PALATAL	- V							
	+ V				ɲ	ʎ		j[8]
VELAR	- V	k		x[12]				
	+ V	g		ɣ				
LABIAL-VELAR	- V	kw						
	+ V	gw[10]						w[15]
GLOTTAL	- V			h[13]				
	+ V							

5.2.3.1. Explanatory Notes to Figures (72) to (74)

1. In the Consonant Chart in this Figure and in all of those which occur below it, *- V* means Voiceless and *+ V* means Voiced.
2. These allophones, of /p/, /t/ and /k/ respectively, occurred in words borrowed into Classical Latin from Greek and, where [pʰ] and [kʰ] are concerned, in native Classical Latin words /-L, see Ch.3 above and the references to Allen (1965) therein, as well as Pope (1934: §629).
3. These phonemes did not occur /-#; see further Figure (75) and Note 10 below.
4. /h/ did not often occur /V-V or /-# and, /#- it could, according to Allen's (1965: 44) interpretation of the Classical Latin spelling evidence, be "omitted". ( ) brackets have been used here to signify these factors.
5. Following Vincent (1988a: 29), [ŋ] is treated here and in the Figures and Comments following as an allophone of both /n/ (before velar consonants /k, g, kʷ, gʷ/, in which context it is spelt with <n>), e.g., *angere* 'to choke', and of /g/ (before nasal consonants (/n/, /m/, spelt <g>), e.g., *agnus* 'lamb'.
6. The consonant /l/ appears to have had a velar allophone [ɫ] when it occurred /-C as in, e.g., *altum* 'other', cf. Allen (1965: 34) and Pope (1934: §109b); see also Note 14 below.
7. The phonemic status of the approximants [j] and [w] is uncertain in the Classical Latin and later periods, cf. Price (1984b: §§3.1, 5.1-5.3); Pei (1941: §§67, 70, 88-89); Vincent (1988: 29) and Allen (1965: 37-42); see also Notes 8 and 15 underneath.
8. Because of sound changes producing [j] as output (cf. Figure (75) below), [j] had a much larger distribution in the Imperial Latin period than in Classical Latin. It is, therefore, conceivable that, [j] had phonemic status in Imperial Latin.
9. This segment could also appear palatalised (predominantly in Gallo-Romance), *viz.*, [t'], [d'], etc.; [ ] brackets are being used here in a broad phonetic sense and imply no claim as to phonemic or allophonic status.
10. /gʷ/ occurred in both Gallo- and Italo-Romance. In both, it was found word-initially in Germanic loanwords, in which context it had developed from original Gmc /#/w/- thus: /w/:<u> → /gʷ/:<gu>, e.g., *wardon* → *guard-* in both Gallo- and Italo-Romance. By analogy, some native Latin words were similarly affected, for instance, CL *uadum* → GR *guaster* (← *"uadum + *waδ"* according to Pope, 1934: §636) and IR *guad-*. This word-initial context was the only one in Gallo-Romance in which /gʷ/ appeared. In Italo-Romance, however, its distribution was extended to the context /V-V as well by a development /kʷ/ → /gʷ/ in that position (cf. Pei 1941: §§87, 88).
11. Occurred in Italo-Romance only.
12. A marginal phoneme in both Gallo- and Italo-Romance. Its retention in the former till the Early Romance period was perhaps encouraged by the occurrence of /x/ in the Celtic substratum and in the Celtic contemporary with it (cf. Pope 1934: §§1, 6, 8, 9, 359).

13. /h/ occurred only in Frankish loans and only /#- or /$-, (see Pope 1934: §§17-18, 28, 185).

14. Some evidence for an allophone [ɬ] of /l/ /-C (cf. Note 6 above), at least in the Early Romance period, could be said to come from an /l/-vocalising development which began in the 9th century, whereby [ɬ] → [u] → /u/ /-C (cf. Pope 1934: §§380-390). Pei (1941: §68) remarks that this development is infrequent in Italian, so the [ɬ] allophone which was the input for /l/-vocalisation in Early Romance may also have been rare in Italo-Romance and its predecessors.

15. The segment [w], lost in the Imperial Latin period - compare Figures (69) and (70) - was re-introduced in Gallo-Romance in the Early Romance period as the reflex of IL /g/ //o/-/a/.

5.2.3.2 Derivation of the Early Romance Consonant System

Segments given in the following Figure are phonemes, unless otherwise specified. Again, unless otherwise specified, the same output is found in Gallo-Romance and in Italo-Romance.

(75)

CLASSICAL LATIN			IMPERIAL LATIN		EARLY ROMANCE	
p	/V-{V} {r}	→	→	→	→	β[2] → v
[pʰ]		→	→	f	→	f
[pj]	/V-V	→	→	→	→	⌐→ [pt͡ʃ] → t͡ʃ[4] └→ [ppj][6]
b	/V-{o} {u}	→	→	β[2]	→	β[5] → ø
	/V-{i} {e} {a}	→	→	β[2]	→	β → v
	/u-V	→	→	β[2]	→	β → ø
	/V-r	→	→	β[2]	→	⌐→ β → v[2] └→ [br][6]
[bj]	/V-V	→	→	→	→	⌐→ [bd͡ʒ] → d͡ʒ[4] └→ [bbj][6]

(Figure (75) continues over)

CLASSICAL LATIN			IMPERIAL LATIN		EARLY ROMANCE	
t	/V-{V} {r} {n}	→	→	→	→	d^{2} → $ð^{2}$
[th][1]		→	→	t	→	t
[tj]	/$-	→	→	[tsj]	→	⌐> ts^{4}
					→	└> $\widehat{tʃ}\widehat{tʃ}^{4}$
	/V-V	→	→	[tsj]	→	⌐> dz'^{4} → $(\underset{\frown}{i})z^{4}$
					→	└> $\widehat{dʒ}^{6}$
d	/V-V	→	→	→	→	$ð^{2}$
	/V-{r} {w}	→	→	→	→	$ð^{4}$
[dj]	/#-	→	→	→	→	$dʒ$
	/V-V	→	→	j	→	⌐> j
			→	→	→	├> $\widehat{dʒ}\widehat{dʒ}^{3,6}$
			→	→	→	└> $dz^{3,6}$
[ds]	/-#	→	→	→	→	ts^{4}
k	/{#}_{i} {$} {e}	→	→	c	→	⌐> ts'^{4}
					→	└> $\widehat{tʃ}^{6}$
	/{#}_{a } {$} {au}	→	→	→	→	$k^{6,7}$
		→	→	→	→	c → $\widehat{tʃ}^{4}$
	/V-{i} {e}	→	→	c	→	t's → d'z
	/{i}-V {e} {a}	→	→	→	→	⌐> g → ɣ → $j^{4,8}$
						└> k^{6}
	/{o }-V {u } {au}	→	→	→	→	⌐> g → $ɣ^{8}$
					→	
					→	└> $k^{6,8}$
[kh][1]		→	→	k	→	k
[kj]	/V-V	→	→	c	→	⌐> $t's^{4}$
					→	└> $\widehat{tʃ}\widehat{tʃ}^{6}$
kw	/#-V[14]	→	→	kw	→	k

(Figure (75) continues over)

CLASSICAL LATIN			IMPERIAL LATIN		EARLY ROMANCE	
(Cont.)						
k^w	/V-{o} {u}	→	→	k^w	→	⌐→ k → └→ $gw^{6,9}$
[kr]	/V-V	→	→	[γr]	→	[(j)r]^2
[ks]			→	[ks]	→	s become /#- ^{6}
[ks]	/V-V	→	⌐→ [xs]^4 └→ [cs]?^{6}		→	[js] → s' → ⌐→ ʃ^6 └→ ss^6
[kt]	/V-V	→	⌐→ [xt]^{4,10} └→ [ct]^6		→	[jt] → t'^{4} → [st]^6
[sk]	/#-	→	→	[sc]	→	⌐→ ts' ^{4} └→ ʃ^6
	/V-{i} {e}	→	→	[sc]	→	⌐→ s'^{4} └→ ʃ^6
g	/{#}-{a } {$} {au}	→	→ →		→ →	⌐→ ʒ^4 → $\widehat{d_3}^4$ └→ g^6
	/{#}-{o}	→	→	→	→	g
	/{#}-{i} {$} {j} {e}	→	→	ʒ	→	⌐→ dz^4 └→ $\widehat{d_3}^6$
	/V-{i} {e}	→	→	g → ʃ → j	→	j → ø
	/{i}-a {e} {a}	→	→	γ^2	→	j^2
	/u-{a} {o} {u}	→	→	γ^2	→	ø^2
	/o-{a}	→	→	γ^2	→	w → v ^{11}
	{o}	→	→	γ^2	→	ø^2
	{u}	→	→	γ^2	→	ø^2
[gj]	/V-V	→	→	jj	→	⌐→ j̆ └→ $\widehat{d_3}\widehat{d_3}^3$
g^w		→	→	gw^{15} /#-	→	g^w
	/V-V	→	→	→	→	⌐→ w^4 └→ gw^6

(Figure (75) continues over)

CLASSICAL LATIN	IMPERIAL LATIN	EARLY ROMANCE
(Cont.) [gr] /V-V →	→ [γr]	→ [jr]^{2} → r^{2}
f →	→ f	→ f
/V-V →	→ →	→ v^{4}
s /V-V →	→ →	→ z^{2}
s → → →	→ →	→ ts^{4} /-{ɲ}^{4} {λ}
[sj] V-V →	→ →	→ ⌐> z' → [iz]^{4} ├> $\widehat{d_3}^{6,13}$ └> $\widehat{t\int}^{6,13}$
h →	→ ø	→ h^{12}
m /-# →	→ ø	→ ø
[mj] /V-V →	→ →	→ ⌐> [n$\widehat{d_3}$] → $\widehat{d_3}^{4}$ └> [mmj]^{6}
[mnj] /V-V →	→ [mnj]	→ ⌐> [n$\widehat{d_3}$] → $\widehat{d_3}^{4}$ └> n^{6}
[nj] /V-V →	→ →	→ ɲ
[ŋn] /V-V →	→ →	→ ɲ
[ŋg] /V-{i} →	→ [ŋʧ]	→ ɲ
{e}		
[ŋk] /V-{t}V →	→ [nt]	→ [nt]
{s} →	→ [ns]	→ [ns]
[lj] /V-V →	→ →	→ λ
[{k}l]/V-V →	→ [kl]}	→ λ
{g} →	→ [gl]}	
[rj] /V-V →	→ →	→ ⌐> r' → [(i)r]^{4} ├> r^{6} └> j^{3,6}

(Figure (75) continues over)

CLASSICAL LATIN			IMPERIAL LATIN		EARLY ROMANCE	
[j]	/#-	→	→	j	→	$\widehat{d_3}$
	/V-V	→	→	[j]	→	⊏> j
					→	⊏> $\widehat{d_3}\widehat{d_3}$ [6]
[w]	/{#}- {$}	→	→	β	→	β → v
[w] (*cont.*)	/V-{i} {e} {a} {r}	→	→	β	→	β → v
[wj]	/V-V	→	→	[βj]	→	⊏> [β$\widehat{d_3}$] → $\widehat{d_3}$ [4]
						⊏> [bbj] [6]

5.2.3.3 Explanatory Notes to Figure (75)

1. Unlike [p^h] → [f] → /f/, this allophone, in those Greek loanwords, and native Latin words in which it occurred (cf. Note 2, §5.2.3.1), did not keep pace with the Late Greek development to a fricative. According to Pope (1934: §629) and Pei (1941: §71), any aspiration present in the Classical Latin pronunciation of such words would have been lost in or by the Imperial Latin period, giving a realisation [t] (cf. the loss of /h/ in most instances, especially in Italo-Romance, as depicted in Figure (73) and as described in Note 13, §5.2.3.1 above). The use of the digraph <th> as a back spelling for /t/ - see Figure (76) below - supports a [t], rather than a [t^h] or a [θ] realisation for the IL/ER reflex of CL [t^h]. The case of CL [k^h] is parallel, hence the IL/ER realisation [k], rather than [k^h] or [x].
2. The occurrence of this development is, however, variable in Italo-Romance, cf. Pei (1941: §§73, 83, 85, 90, 91). Where it does not occur, the Classical Latin consonant generally remains in Italo-Romance, spelt with its traditional Classical Latin graph(s) - cf. Figure (76) below.
3. Another possible output in Italo-Romance, cf. Pei (1941: §§90, 86, 93).
4. Gallo-Romance only.
5. See Pei (1941: §90) for further variation in the operation of lenition, depending on context - the context /V-r, for instance, was not one in which lenition operated in Italo-Romance.
6. Italo-Romance only.
7. In Italo-Romance, /k/ /#-/a/ or /$-/a/, remained as /k/, but in a few instances, it became voiced /g/:<g> (cf. Pei 1941: §83).
8. Normally in this context, /k/ remains in Italo-Romance, but there are a few instances of /k/ → /g/, cf. Pei (1941: §83).
9. /g^w / is another possible output of /k^w / /V-V in Italo-Romance (cf. Pei 1941: §87 - in the examples he cites with this development, IL /k^w / occurs /V-/a/ or /V-/i/, rather than in

the named context /V-/o/ or /V-/u/) - this latter context was apparently one in which IL /kʷ/ → /k/ in both Gallo-Romance and Italo-Romance.

10. The Gallo-Romance reflex [xt] of CL [kt] /V-V may be due to Celtic influence, according to Pope (1934: §§9, 359).
11. Pope (1934: §341.ii) says that IL /γ/ → /w/ → /v/ in Gallo-Romance //o/-/a/.
12. See Note 13, in §5.2.3.1 above.
13. The development of /s/ to either /d͡ʒ/ or /t͡ʃ/ in Italo-Romance depended on whether /s/ was in pre-tonic position (in which case, /s/ → /d͡ʒ/, as in *pensione* → It *pigione* 'rent') or post-tonic (when /s/ → /t͡ʃ/, as in *camisia* → *camicia* 'shirt'), cf. Pei (1941: §92).
14. Any stressed vowel except /a/.
15. See Note 10, §5.2.3.1.

5.2.3.4 The Spelling of Latin Consonants from Classical Latin to Early Romance

This Figure correlates with Figure (75) and cross reference should be made between the two. For ease of reference, the relevant notes from §5.2.3.3 have been reproduced after this Figure, as well as a few additional ones relating primarily to spelling. Information for Figure (76) was gained from the books listed above at §5.2.1, but primarily from Pope (1934), Pei (1941) and Vielliard (1927).

(76)

CLASSICAL LATIN	IMPERIAL LATIN	EARLY ROMANCE
⟨*p*⟩:/p/	⟨*p*⟩:/p/	⟨*p*⟩:/p/
⟨*p*⟩:/p/ /V-{V} {r}	⟨*p*⟩:/p/	⟨*p,b,u*⟩:/β/ → ⟨*b,u*⟩:/v/
⟨*ph,p*⟩:[pʰ]	⟨*f,(ph)*⟩:/f/	⟨*f,(ph)*⟩:/f/
⟨*pi*⟩:[pj] /V-V	⟨*pi*⟩:[pj]	⟨*pch*⟩:[pt͡ʃ] → ⟨*ch*⟩:/t͡ʃ/[4] ⟨*ppi*⟩:[ppj][6]
⟨*b*⟩:/b/	⟨*b*⟩:/b/	⟨*b*⟩:/b/
⟨*b*⟩:/b/ /V-{o} {u}	⟨*b,u*⟩:/β/	⟨*b,u*⟩:/β/ → ø:ø
⟨*b*⟩:/b/ /V-{i} {e} {a}	⟨*b,u*⟩:/β/[2]	⟨*b,u*⟩:/β/ → ⟨*u*⟩:/v/

(Figure (76) continues over)

CLASSICAL LATIN		IMPERIAL LATIN	EARLY ROMANCE
⟨*b*⟩:/b/	/u-V	⟨*b,u*⟩:/β/[2]	⟨*b,u*⟩:/β/ → ø:ø
⟨*b*⟩:/b/	/V-r	⟨*b,u*⟩:/β/[2]	⟨*b,u*⟩:/β/ → ⟨*u*⟩:/v/[2]
⟨*bi*⟩:[bj]	/V-V	⟨*bi*⟩:[bj]	⟨*bgi,bge*⟩:[bd͡ʒ] → ⟨*gi,ge,i*⟩:/d͡ʒ/[4] ⟨*bbi*⟩:[bbj][6]
⟨*t*⟩:/t/		⟨*t*⟩:/t/	⟨*t*⟩:/t/
⟨*t*⟩:/t/	/V-{V} {r} {n}	⟨*t*⟩:/t/	⟨*d*⟩:/d/[2] → ⟨*dh,th*⟩:/ð/[2]
⟨*th,t*⟩:[tʰ][1]		⟨*t,(th)*⟩:/t/	⟨*t,(d)*⟩:/t/
⟨*ti*⟩:[tj]	/$-	⟨*ti*⟩:[tsj]	⟨*ti,ci,ce,z*⟩:/ts/[4,16] ⟨*cci,cce*⟩:/t͡ʃt͡ʃ/[6]
⟨*ti*⟩:[tj]	/V-V	⟨*ti*⟩:[tsj]	⟨*z*⟩:/dz'/[4] → ⟨*(i)z*⟩:/(i)z/[4] ⟨*gi,ge,i*⟩:/d͡ʒ/[6,17]
⟨*d*⟩:/d/		⟨*d*⟩:/d/	⟨*d*⟩:/d/
⟨*d*⟩:/d/	/V-V	⟨*d*⟩:/d/	⟨*dh,th*⟩:/ð/[2]
	/V-{r} {w}	⟨*d*⟩:/d/	⟨*dh,th*⟩:/ð/[5]
⟨*di*⟩:[dj]	/#-	⟨*di*⟩:[dj]	⟨*gi,ge*⟩:/d͡ʒ/
	/V-V	⟨*di,i,g*⟩}:/j/ ⟨*gi,ge*⟩ }	⟨*di,i,g*⟩ }:/j/ ⟨*gi,ge,ti*⟩} ⟨*ggi,gge*⟩:/d͡ʒd͡ʒ/[3] ⟨*zz*⟩:/dz/[3]
⟨*ds*⟩:[ds]	/-#	⟨*ds*⟩:[ds]	⟨*ci,ce,ti*⟩:/ts/[4]
⟨*c*⟩:/k/		⟨*c*⟩:/k/	⟨*c,(k),(qu)*⟩[18]:/k/
⟨*c*⟩:/k/	/{#}_{i} {$} {e}	⟨*ci,ce*⟩:/c/	⟨*ci,ce,ti*⟩:/ts'/[4] ⟨*ci,ce*⟩:/t͡ʃ/[6]
⟨*c*⟩:/k/	/{#}-{a } {$} {au}	⟨*c*⟩:/k/	⟨*c*⟩:/k/[6,7] ⟨*ci,ce*⟩:/c/ → /t͡ʃ/[4]
⟨*c*⟩:/k/	/V-{i} {e}	⟨*ci,ce*⟩:/c/	⟨*ci,ce,ti*⟩:/t's/ → ⟨*z*⟩:/d'z/

(Figure (76) continues over)

CLASSICAL LATIN	IMPERIAL LATIN	EARLY ROMANCE
(cont.)		
⟨c⟩:/k/ /{i}-V {e} {a}	⟨c⟩:/k/	⟨g⟩:/g/ → /ɣ/ → ⟨g,i,gi,ge,di⟩:/j/[4,8] ⟨c⟩:/k/[6]
⟨c⟩:/k/ /{o }-V {u } {au}	⟨c⟩:/k/	⟨g⟩:/g/ → /ɣ/[8]
	⟨c⟩:/k/	⟨c⟩:/k/[6,8]
⟨ch,c⟩:[kʰ][1]	⟨c,(ch)⟩:/k/	⟨c,(ch)⟩:/k/
⟨ci⟩:[kj] /V-V	⟨ci⟩:/c/	⟨ci,ce,ti⟩:/t's[4]/ ⟨cci,cce⟩:/t͡ʃt͡ʃ/[6]
⟨qu⟩:/kʷ/ /#-V[14]	⟨qu⟩:/kʷ/	⟨qu⟩:/k/
⟨qu⟩:/kʷ/ /V-{o} {u}	⟨qu⟩:/kʷ/	⟨q(u),c⟩:/k/ ⟨gu⟩:/gʷ/[6,9]
⟨cr⟩ }:[kr] /V-V ⟨(kr)⟩}	⟨gr⟩:[ɣr]	⟨(i)r⟩:[(j)r][2]
⟨x,cs⟩}:[ks] ⟨(ks)⟩}	⟨x,cs⟩:[ks]	⟨s⟩:/s/ become /#-[6]
⟨x,cs⟩}:[ks] /V-V ⟨(ks)⟩}	⟨x(s)⟩:{[xs][4] {[cs]?[6]	⟨(i)s⟩:[js] → /s'/ ⟨sci,sce⟩:/ʃ/[6] ⟨ss⟩:/ss/[6]
⟨ct⟩:[kt] /V-V ⟨(kt)⟩	⟨cth⟩ }:[xt][4] ⟨ct(h)⟩} [ct][6]	⟨(i)t⟩:[(j)t'][4] ⟨st⟩:[st][6]
⟨sc⟩:[sk] /#-	⟨sc⟩:[sc]	⟨ci,ce,ti⟩:/ts'/[4] ⟨sci,sce⟩:/ʃ/[6]
⟨sc⟩:[sk] /V-{i} {e}	⟨sc⟩:[sc]	⟨s⟩:/s'/ ⟨sci,sce⟩:/ʃ/[6]
⟨g⟩:/g/ /#-a	⟨g⟩:/g/	⟨gi,ge⟩:/ʒ/[4] → /d͡ʒ/[4]
⟨g⟩:/g/ /$-au	⟨g⟩:/g/	⟨g⟩:/g/[7]
⟨g⟩:/g/ /{#}-{o}	⟨g⟩:/g/	⟨g⟩:/g/
/{#}-{i} {$} {j} {e}	⟨g⟩:/ʃ/	⟨z⟩:/dz/[4] ⟨gi,ge⟩:/d͡ʒ/[6]

(Figure (76) continues over)

CLASSICAL LATIN	IMPERIAL LATIN	EARLY ROMANCE
(cont.)		
⟨g⟩:/g/ /V-{i} {e}	⟨i,g,gi,ge⟩: /g/ → /ɟ/ → /j/	⟨i,gi,ge,ti,di⟩: /j/ → ø
⟨g⟩:/g/ /{i}-a {e} {a}	⟨g⟩:/ɣ/[2]	⟨i,gi,ge,ti,di⟩: /j/[2]
⟨g⟩:/g/ /u-{a} {o} {u}	⟨g⟩:/ɣ/[2]	ø:ø[2]
⟨g⟩:/g/ /o-{a} {o} {u}	⟨g⟩:/ɣ/[2] ⟨g⟩:/ɣ/[2] ⟨g⟩:/ɣ/[2]	⟨u⟩:/w/ →/v/[11] ø:ø[2] ø:ø[2]
⟨gi⟩:[gj] /V-V	⟨gi,i,g⟩:/jj/	⟨i,gi,ge,ti,di⟩:/j/ ⟨ggi,gge⟩:/d͡ʒd͡ʒ/[3]
⟨gu⟩:/gʷ/	⟨gu⟩:/gʷ/[15] /#-	⟨gu⟩:/gʷ/
⟨gu⟩:/gʷ/ /V-V	⟨gu⟩:/gʷ/	⟨u(u)⟩:/w/[4] ⟨gu⟩:/gʷ/[6]
⟨gr⟩:[gr] /V-V	⟨gr⟩:[ɣr]	⟨(i)r⟩:[jr][2] → /r/[2]
⟨f⟩:/f/	⟨f⟩:/f/	⟨f⟩:/f/
⟨f⟩:/f/ /V-V	⟨f⟩:/f/	⟨u,(b)⟩:/v/[4]
⟨s⟩:/s/	⟨s⟩:/s/	⟨s⟩:/s/
⟨s⟩:/s/ /V-V	⟨s⟩:/s/	⟨s⟩:/z/[2]
⟨s⟩:/s/	⟨s⟩:/s/	⟨z⟩:/ts/[4] /-{n̪}[4] {λ}
⟨si⟩:[sj] V-V	⟨si⟩:[sj]	⟨(i)s⟩:/z'/ → [ʑz][4] ⟨gi,ge⟩:/d͡ʒ/[6,13] ⟨ci,ce⟩:/t͡ʃ/[6,13]
⟨h⟩:/h/	⟨h⟩,ø:ø	⟨ch, (h)⟩:/h/[12]
⟨m⟩:/m/	⟨m⟩:/m/	⟨m⟩:/m/
⟨m⟩:/m/ or ø /-#	⟨m⟩:ø[19]	⟨m⟩:ø[19]
⟨mi⟩:[mj] /V-V	⟨mi⟩:[mj]	⟨(n)gi,(n)ge⟩: [nd͡ʒ] → /d͡ʒ/[4] ⟨mmi⟩:[mmj][6]

(Figure (76) continues over)

CLASSICAL LATIN	IMPERIAL LATIN	EARLY ROMANCE
(cont.) *⟨mni⟩*:[mnj] /V-V	*⟨mni⟩*:[mnj]	*⟨(n)gi, (n)ge⟩*: [nd$_3$] → /d$_3$/[4] *⟨gn⟩*:/ɲ/[6]
⟨n⟩:/n/	*⟨n⟩*:/n/	*⟨n⟩*:/n/
⟨ni⟩:[nj] /V-V	*⟨ni⟩*:[nj]	*⟨ign[4], gn⟩*:/ɲ/
⟨ng⟩:[ŋg] /V-{i}{e}	*⟨ng⟩*:[nʃ]	*⟨ign[4], gn⟩*:/ɲ/
⟨gn⟩:[ŋn] /V-V	*⟨gn⟩*:[nn]	*⟨ign[4], gn⟩*:/ɲ/
⟨nc⟩:[ŋk] /V-{t}V{s}	*⟨nt⟩*:[nt] *⟨ns⟩*:[ns]	*⟨nt⟩*:[nt] *⟨ns⟩*:[ns]
⟨l⟩:/l/	*⟨l⟩*:/l/	*⟨l⟩*:/l/
⟨li⟩:[lj] /V-V	*⟨li⟩*:[lj]	*⟨il(l)[4], gli[6]⟩*:/ʎ/
⟨kl⟩:[kl] /V-V *⟨gl⟩*:[gl]	*⟨kl⟩*:[kl] *⟨gl⟩*:[gl]	*⟨il(l)[4], gli[6]⟩*:/ʎ/
⟨r⟩:/r/	*⟨r⟩*:/r/	*⟨r⟩*:/r/
⟨ri⟩:[rj] /V-V	*⟨ri⟩*:[rj]	*⟨(i)r⟩*:/r'/ → [(i̯)r][4] *⟨r⟩*:/r/[6] *⟨i⟩*:/j/[3, 6]
⟨i⟩:[j] /#-	*⟨i⟩*:/j/	*⟨gi, ge, i⟩*:/d͡ʒ/
⟨i⟩:[j] /V-V	*⟨i, g, gi, ge, di⟩*: [j]	*⟨i, g, gi, ge, di⟩*:/j/ *⟨ggi, gge⟩*:/d͡ʒd͡ʒ/[6]
⟨u⟩:[w] /{#}-{$}	*⟨u, b⟩*:/β/	*⟨u(u)⟩*:/β/ → /v/
⟨u⟩:[w] /V-{i}{e}{a}{r}	*⟨u, b⟩*:/β/	*⟨u, (b)⟩*:/β/ → /v/
⟨ui⟩:[wj] /V-V	*⟨ui, bi, ue, be⟩*: [βj]	*⟨bgi, bge⟩*:[βd͡ʒ] → *⟨gi, ge, i⟩*:/d͡ʒ[4]/ *⟨bbi⟩*:[bbj][6]

5.2.3.5 **Explanatory Notes to Figure (76)**

The notes to Figure (75) are reproduced here for ease of reference, together with some additional notes which relate only to spelling.

1. Unlike [pʰ] → [f] → /f/, this allophone, in those Greek loanwords, and native Latin words in which it occurred (cf. Note 2, §5.2.3.1), did not keep pace with the Late Greek development to a fricative. According to Pope (1934: §629) and Pei (1941: §71), any aspiration present in the Classical Latin pronunciation of such words would have been lost in or by the Imperial Latin period, giving a realisation [t] (cf. the loss of /h/ in most instances, especially in Italo-Romance, as depicted in Figure (73) and as described in Note 13, §5.2.3.1 above). The use of the digraph ⟨th⟩ as a back spelling for /t/ - see Figure (76) above - supports a [t], rather than a [tʰ] or a [θ] realisation for the IL/ER reflex of CL [tʰ]. The case of CL [kʰ] is parallel, hence the IL/ER realisation [k], rather than [kʰ] or [x].
2. The occurrence of this development is, however, variable in Italo-Romance, cf. Pei (1941: §§73, 83, 85, 90, 91). Where it does not occur, the Classical Latin consonant generally remains in Italo-Romance, spelt with its traditional Classical Latin graph(s) - cf. Figure (76) above.
3. Another possible output in Italo-Romance, cf. Pei (1941: §§90, 86, 93).
4. Gallo-Romance only.
5. See Pei (1941: §90) for further variation in the operation of lenition, depending on context - the context /V-/r/, for instance, was not one in which lenition operated in Italo-Romance.
6. Italo-Romance only.
7. In Italo-Romance, /k/ /#-/a/ or /$-/a/, remained as /k/, but in a few instances, it became voiced /g/:⟨g⟩ (cf. Pei 1941: §83).
8. Normally in this context, /k/ remains in Italo-Romance, but there are a few instances of /k/ → /g/, cf. Pei (1941: §83).
9. /gʷ / is another possible output of /kʷ / /V-V in Italo-Romance (cf. Pei 1941: §87 - in the examples he cites with this development, IL /kʷ / occurs /V-/a/ or /V-/i/, rather than in the named context /V-/o/ or /V-/u/)- this latter context was apparently one in which IL /kʷ / → /k/ in both Gallo-Romance and Italo-Romance.
10. The Gallo-Romance reflex [xt] of CL [kt] /V-V may be due to Celtic influence, according to Pope (1934: §§9, 359).
11. Pope (1934: §341.ii) says that IL /ɣ/ → /w/ → /v/ in Gallo-Romance //o-a/.
12. See Note 13, in §5.2.3.1 above.
13. The development of /s/ to either /d͡ʒ/ or /t͡ʃ/ in Italo-Romance depended on whether /s/ was in pre-tonic position (in which case, /s/ → /d͡ʒ/, as in *pensione* → It *pigione* 'rent') or post-tonic (when /s/ → /t͡ʃ/, as in *camisia* → *camicia* 'shirt'), cf. Pei (1941: §92).
14. Any stressed vowel except /a/.
15. See Note 10, §5.2.3.1.
16. ⟨ce⟩ normally represents /ts/ before vowels, effectively

/-/a,o,u/; <z> is employed for /ts/ /-#. Early experimental spellings found for /ts/ are <cz> and <tc> (see Pope 1934: §700).

17. <i> for /d_3/ was normally used /-/a,o,u/, <gi> where the vowel in the word in question was etymologically CL /i(:)/ and <ge> where the vowel in the relevant word was original CL /e(:)/.

18. In early Classical Latin, <k> was used, though inconsistently, /-/a/ or /-C and <q> /-/o,u/. In the Early Romance period, <k> was used infrequently and <qu> only when the context of occurrence was other than /-/i,e/.

19. See again §3.4.1 (Principle 2) above for the use of <m> as a 'silent letter'.

5.3 *ABCs: THE 'SUPPLY' FROM IRISH*

5.3.1 *Introduction*

The linguistic label *Irish* has been described already (at §3.4.1, Principle 2 and §4.2). Although the period covered is from around the beginning of the 7th century to the end of the 8th century (i.e., Early Old Irish and the first half of the Old Irish period) description is focussed on c. 650 to c. 750 A.D. because this is the period when the Anglo-Saxons were learning to read and write Latin and then Old English. The following Figures plotting the reconstruction of the early Old Irish vowel and consonant systems contain only phonemes and primary/major allophones (see §5.2.1 for the reasons for this re Latin - they apply here also). Explanatory Notes, corresponding to the superscript numbers in the Figures are located just after the Figures.

The following works have been consulted in the preparation of the Figures detailing the early Old Irish sound system and the Notes accompanying them: Greene (1962), (1973) and (1976); Harvey (1985), (1987a) and (1989); Jackson (1953); Lehmann and Lehmann (1975); Lewis and Pederson (1961); Pokorny (1923); Thurneysen (1980); Watkins (1964-1966); Quin (1975) and, finally, a Booklet issued by the Department of Celtic, University of Edinburgh 'Notes on early Irish

illustrating lectures' kindly given to me by Professor William Gillies in 1986. As with Latin (cf. §5.2.1), the reports in these works vary in detail and usefulness. The account given here is abstracted and adapted where necessary to accord with phonological acceptability, fidelity to the written evidence and fitness for present purposes, from the works just cited. It is not intended to be comprehensive. Information other than that provided here should be sought in the works listed.

5.3.2 *The Early Old Irish Vowel System*

(77)

RECONSTRUCTED VOWEL SYSTEM AND SPELLINGS[1] FOR EARLY OLD IRISH

Stressed Vowels[11]

Long and Short Monophthongs		Diphthongs[5]		
/i(:)/ ⟨*i*⟩	/u(:)/ ⟨*u*⟩	[i:a] ⟨*ia,ea*⟩[6]	/i:u/ ⟨*iu*⟩, ⟨*eu,eo*⟩[7]	/u:i/ ⟨*ui*⟩	[u:a][8] ⟨*ua,oa*⟩
/e(:)/ ⟨*e*⟩, ⟨*æ*⟩[2]	/o(:[4])/ ⟨*o*⟩		/e:u/ ⟨*eu*⟩, ⟨*eo,iu*⟩[7]	/o:i/ ⟨*oi,oe*⟩, ⟨*ai,ae*⟩[9]	
[ɛ:] ⟨*e*⟩, ⟨*ee,ei*⟩[3]					
/a(:)/ ⟨*a*⟩		/a:i/ ⟨*ai,ae*⟩, ⟨*oi,oe*⟩[9]		/a:u/ ⟨*au,ao,o*⟩[10]	

Unstressed Vowels[11]

Monophthongs

/i/ ⟨*i,e*⟩	/u/ ⟨*u,o*⟩
/e/ ⟨*e,i*⟩	/o/ ⟨*o,u,(iu)*⟩
/a/ ⟨*a,(o)*⟩	

5.3.2.1 Explanatory Comments on Figure (77)

1. Length in monophthongs and diphthongs is often, but not consistently, marked in word forms in Old Irish manuscripts by placing an acute accent over the relevant syllable or, for long monophthongs, doubling the vowel graph in question (cf. Thurneysen 1980: §§26, 27). From the contexts in which vowel graph doubling is found in, e.g., the 8th-century *Würzburg Glosses* (glosses on the Latin text of the *Pauline Epistles* preserved at Würzburg), Thurneysen claims that it "is intended to express something more than mere length, perhaps a pronunciation bordering on *[sic]* disyllabic". Whatever the reason for vowel graph doubling, neither it, nor the superscribing of accent marks is consistent in practice. Further, the accent mark is also found "indiscriminately" over the first or the second element in diphthongs (cf. Note 5 below). For these reasons, neither the acutes nor the doubled vowel graphs have been included in spellings given in this Figure or in any word forms cited in support of them here or elsewhere.
2. ⟨æ⟩ can be used to represent long and short /e/ (cf. Thurneysen 1980: §§24.1, 52-53). He also reports that the use of two non-ligatured graphs, *viz.*, ⟨ae⟩, is rare because ⟨ae⟩ was the spelling used to represent the diphthong /a:i/ - cf. Note 9 below.
3. [ɛ:] ← Pro OIr /a/ or /e/ /-N + /t,k,s/ or /-N + /x,ɣ/ + Sonorant. The loss of the following Nasal consonant was compensated for by lengthening of the preceding vowel which also changed quality to [ɛ] (cf. Thurneysen 1980: §§208, 210). This monophthong was usually spelt ⟨e⟩, as in *cenel* 'kindred/gender', but sometimes it was spelt ⟨ee⟩ or ⟨ei⟩ even before non-palatalised consonants (cf. Note 11 below on the use of front vowel diacritics to signify a preceding or following palatalised consonant) - perhaps to differentiate it from the high-mid vowel /e:/ which was also spelt ⟨e⟩, e.g., *ceneel* or *ceibuid* 'sense' (cf. Thurneysen 1980: §54).
4. /o:/ was a marginal phoneme at this point and until around the early 9th century when /a:u/ monophthongised to /o:/, cf. Note 10 below.
5. Diphthongs in early Old Irish were long and falling (though see Note 11 below).
6. The diphthong [i:a]:⟨ia⟩ or ⟨ea⟩ derived - via earlier [e:a] (a diphthongal quality postulated on the basis of the ⟨ea⟩ spellings recorded in the earliest Old Irish texts) from /e:/ /-C [- palatalised] - see §5.3.3.1, Note 11 below on consonant colour, cf. Thurneysen (1980: §§53, 71 157, 160, 91, 106, 288-289). So, for instance, the early Old Irish Nominative Singular word form of the *-ā-*stem Noun *grían* 'sun' [gri:an] ← Pr OIr [gre:na:] contains the diphthong because the consonant /n/ which followed the original vowel /e:/ was, and remained, neutral in quality. The Genitive Singular word form is, however *grene* - it contains /e:/:⟨e⟩ in stressed vowel position rather than [i:a] because the consonant which follows it was, and remained, palatal in quality, thus eOIr [gre:n'e] ← Pr OIr [gre:nja:s] (after [j], all final syllables were kept; otherwise

they were lost due to the 6th-century apocope - cf. Thurneysen 1980: §§89-94, especially §94).

7. The diphthongs /i:u/ and /e:u/ could be spelt with ⟨iu⟩, ⟨eu⟩ or ⟨eo⟩. Thurneysen says (1980: §71 and cf. §§55, 70) that /i:u/ is one output of the Primitive Old Irish diphthongisation of /ɛ:/ /- /l',r',n'/ or /-C [+ velarised] (the other was apparently [e:u] or [e:o]) - see Note 1 to Figure (78) below for information on Old Irish consonant quality and its apparently phonemic status. It may be that the availability of all three vowel digraph spellings suggests that the three diphthongs had merged into one (quality unknown, but perhaps in /i:u/ or /e:o/, given that of the two ⟨e-⟩ spellings, the one with ⟨-o⟩ is the commonest).

8. The diphthong [u:a] ← /o:/, possibly via a stage [o:a] - the interpretation normally accorded to the ⟨oa⟩ spellings which occur in the earliest Old Irish texts. The diphthongisation was less consistent in operation than that described in Note 6 above, but did not, like it, occur only /-C [- palatal] - see Thurneysen (1980: §§60 - 63).

9. Thurneysen (1980: §66) suggests that the spellings in ⟨-e⟩ (i.e., ⟨ae⟩ and ⟨oe⟩) are probably modelled on Latin. Given that Classical Latin did have the diphthongs /ae/:⟨ae⟩ and /oe/:⟨oe⟩ (cf. §§5.2.2.1 and 5.2.2.8 and Figures (64) and (69) therein), whereas early Old Irish did not and given also that these graphs were retained in use when writing Latin even when the diphthongs had monophthongised (cf. §5.2.2.8, Figures (70) and (71) and Notes thereto) and that they would therefore be familiar to the Irish for writing Latin, this seems a very reasonable view. The two diphthongs /a:i/ and /o:i/ merged during the Old Irish period - this is probably what is being indicated in the "constant fluctuation" between ⟨a⟩ and ⟨o⟩ in the representation of the first element of each diphthong spoken of by Thurneysen (1980: §66). Possible intermediate values for each are [ɛe] and [öe] respectively - certainly a front/fronted first element seems likely given that the monophthongal reflex of both diphthongs is spelt with ⟨æ⟩ in Middle Irish manuscripts (cf. Note 2 above).

10. The ⟨ao⟩ and ⟨o⟩ spellings, alongside ⟨au⟩ for the diphthong /a:u/ perhaps reflect its evolution to the monophthong /o:/ (thought to have been complete by c. 800 - cf. Department of Celtic booklet: 11). Pr OIr /o:u/ had earlier merged with /a:u/ and developed thereafter like it to /o:/.

11. Vowel graphs - in stressed and unstressed syllables - do not always represent vowels. There are various explanations of their significance. They can function as diacritics to indicate the quality of a preceding or following consonant (on consonant quality, or 'colour' see further Note 1, §5.3.3.1 below), e.g., *maith* 'good' where ⟨i⟩ indicates that the consonant which follows it is palatalised, i.e., /θ'/, or *delbae* 'form (Gen Sg)' where ⟨a⟩ indicates that the consonant preceding it is neutral in quality, i.e., /β/, or *manchuib* 'monk (Dat Plu)' where ⟨u⟩ is indicating that the preceding consonant is velarised, or *u*-quality, *viz.*, /xᵘ/ and ⟨i⟩ that the consonant which follows it is palatalised - /β'/. Thurneysen (1980: §86), however, states that this diacritic function did not come about until "the later

language" - it is unclear whether he means late Old Irish, or possibly even Middle Irish. He claims that the vowel graphs represent on-glides and off-glides (he does not specify syllabicity or non-syllabicity) - either front/palatal [i] represented by ⟨i⟩ or ⟨e⟩, or labial-velar [u], indicated by ⟨u⟩; ⟨o⟩ or ⟨a⟩ is thought to represent a 'neutral' glide [ɑ] or [a]. This view seems sensible. It is hard to see how in the articulation of a palatal or a velarised consonant (and the difference does seem to have been noticeable and functional enough in Old Irish for each consonant quality to have phonemic status - cf. Thurneysen (1980: §84) or Greene (1962: 622 - though he does not support phonemic status for velarised consonants) some sort of transitional glide before and/or after the consonant could have been avoided. A listing of the contextual occurrences of supposed diacritic usages/supposed glide usages signified by the vowel graphs ⟨i,e⟩, ⟨o,a⟩ and ⟨u⟩ can be found in Thurneysen (1980: §§84-88).

Daunt (1939), whose paper was so influential in sparking off the 'digraph controversy' in relation to vowel digraph spellings in Old English and whether or not they represented short diphthongs, gives a mixter-maxter of a report of the Old Irish situation claiming that the digraph spellings represented both glides and diacritics indicating consonant quality. The two possibilities are not, however, incompatible with each other. This can be gathered from Thurneysen's statement (1980: §§101-105, 115) that in unstressed syllables in Old Irish, the quality of the unstressed vowel seems to have dictated entirely by that of the preceding or following consonant, regardless of its original quality. So, ⟨i,e⟩ are used interchangeably - perhaps to represent some sort of high-mid front unstressed vowel/on-glide/off-glide - in the neighbourhood of palatalised consonants; ⟨a,(o)⟩ are used - again, perhaps - to represent some sort of central unstressed vowel/on-glide/off-glide - in the neighbourhood of neutral (i.e., non-palatalised and non-velarised) consonants and ⟨u,(o),(iu)⟩ occur interchangeably - presumably to represent some sort of high-mid back unstressed vowel/on-glide/off-glide - in the neighbourhood of velarised consonants (though see Thurneysen 1980: §§95, 103, 115 for some exceptions in manuscript usage to the broad statement of vowel graph groupings and occurrences he cites in his main treatment of the matter). One possible interpretation of this usage is that vowel graphs, at least in unstressed syllables, did have a dual function - they operated as on-/off-glides (rather than vowels with a distinct quality - cf. the opening few lines of this Note) and as diacritics/cues telling of preceding and/or following consonant quality.

There is a third view, however, which further complicates the picture - that of Greene - for a more detailed discussion of this see Note 1, §5.3.3.1 below. Greene's conclusion is that ⟨Vu⟩ forms in Old Irish manuscripts represent, in stressed syllables, a series of short diphthong phonemes with /-u/ as their second element. He further claims (1976: 39) that these became rising diphthongs before the mid 8th century. In unstressed syllables, he says that there were two "phonemically relevant" short vowels: one "unrounded and

written *a, e, i"* and the other "rounded and written *o, u, iu"* (1962:624). This view has affinities with the one I put forward in the preceding paragraph, with the exception of the <a> graph. The question of vowel digraph spellings, especially <Vu> ones in Old Irish is obviously not straightforward and merits more examination than there is scope for here.

5.3.3 *The Early Old Irish Consonant System*

(78)

RECONSTRUCTED CONSONANT SYSTEM[1] FOR

EARLY OLD IRISH

Single[2] Consonants

ARTICULATION Manner / Place		STOP	FRICATIVE	NASAL	LATERAL	TRILL
BILABIAL	- V	p[3]	.....	.....	.....	.....
	+ V	b[5]	β[4,5]	m		
LABIO-DENTAL	- V	.....	f[4]	.....	.....	.....
	+ V		ṽ[4]			
DENTAL	- V	t	.....	.....	.....	.....
	+ V	d[5]	θ[4], ð[4]	N[8], n[4,5]	L[8], l[4]	
ALVEOLAR	- V	.....	s	.....	.....	.....
	+ V		.....			R[8], r[4]
PALATO-ALVEOLAR	- V	.....	ʃ[6]	.....	.....	.....
	+ V		.....			
VELAR	- V	k	x[4]	.....	.....	.....
	+ V	g[5]	ɣ[4]	[ŋ][9]		
LABIAL-VELAR	- V	.....	.....	.....	.....	.....
	+ V					
GLOTTAL	- V	.....	h[4,7]	.....	.....	.....
	+ V		.....			

5.3.3.1 Explanatory Notes to Figure (78)

1. All consonants in this Figure could occur in three (or at least two - see further below) distinct consonant qualities or 'colourings': neutral (or normal), palatalised and velarised -

these are indicated (cf. Note 11 at §5.3.2.1 above) by the use of various vowel graphs which tell which quality a preceding and/or following consonant is. Thurneysen (1980: §157) describes the origin of these different consonant qualities: before the loss word-medial and -final syllables, around the 6th century (cf. his §§106 ff. and 91 ff), the quality of every consonant was dictated by the vowel which followed it. As a result, palatalised consonants occurred before /i(:)/ and /e(:)/, neutral ones before /a(:)/ and /o(:)/ and velarised ones before /u(:)/. When a consonant occurred before a diphthong, its quality was determined by the first element of the diphthong. After these conditioning vowels were lost (due to the syncope and apocope of syllables just mentioned) the qualities or 'colourings' previously imparted by the vowels were retained by the consonants and thus the three consonant qualities achieved phonemic status. That the qualities were phonemically functional is suggested by the consideration that in many paradigms these would have been the only aural/oral carriers of morphological information, e.g., the /r/:<r> in the word form *fer* 'man' has neutral quality derived from the inflexion *-as/-an* which followed it in Primitive Old Irish. The neutral word-final /r/ indicates that this form is Accusative Singular. Likewise, the palatalised /r'/ word-finally in the word form *fir*, deriving from Pr OIr *-i*, serves to mark it as the Vocative/Genitive Singular form. Finally, the word-final velarised /rᵘ/ (← Pr OIr *-u*) of the word form *fiur* tells that this word form is Dative Singular. However, Thurneysen himself states (§157) that this "threefold division" of consonant quality he describes is a simplification of "the facts *[sic]*". He goes on to say, for instance, that "[i]nstead of *u*-quality it would sometimes be more exact to speak of *o*-quality". He also points out that the degree of palatalisation of palatalised consonants seems to have varied and that "[t]o the rule that every consonant takes its quality from the vowel which originally followed it there are certain exceptions" (these he describes in §§158-169).

Thurneysen's qualms about *u*-quality are shared, but expressed more forcefully, by Greene (1962) and (1976). He rejects the claim of a three-way phonemic distinction in consonant quality in Old Irish, asserting instead that the opposition was between palatal quality *versus* non-palatal (consisting of neutral and velar qualities). He supports his thesis pretty well by pointing out that a triple series of consonant colourings is very rare in any language - palatalised *versus* non-palatalised being the norm, as in Modern Russian and Modern Irish Gaelic. He also notes that the morpho-phonological functional load of palatalised consonants is enormous while that of velarised consonants seems to have been restricted to distinguishing only the Dative case of *-o-*stem Nouns and the First Person Singular of certain verbs from the Third Person Singular. In addition, (phonemic) *u*-quality supposedly disappeared at an early stage in the Old Irish period - Thurneysen, for instance, (1980: §174) says that "neutral quality began to supplant *u*-quality at a very early period", even as early as the mid 8th century (according to his

interpretation of the spelling forms in the *Würzburg Glosses*, §§170-173). Continuing the same strand of his argument, Greene claims that the use of <u> in, e.g., ***manchuib***, cited earlier in Note 11 at §5.3.2.1 above, signifies only "a phonetic velarization" of the preceding consonant by [u] represented by <u> (1962: 623) - he likens this "velarization" to that found in a similar context in words in Modern Irish. Greene's conclusion is that <Vu> forms in stressed syllables do not indicate velar(ised) consonant quality, but instead a series of short diphthong phonemes with /-/u/ as their second element. He further claims (1976: 39) that these became rising diphthongs before the mid 8th century. Greene's argument could be seen, however, as rather lopsided inasmuch as equally reasonable claims could, conceivably, be made for <Vi/e> and <Vo/a> spellings in stressed syllables as representing diphthongs too (rising or not) - recall Thurneysen's assertion (cf. Note 11, §5.3.2.1) that the vowel graph spellings <i,e>, etc. represent vowel glides and consider that "diphthongs are sometimes referred to as 'gliding vowels' - cf. Crystal (1985: 137), also Gimson (1980: 43). Yet Greene does not mention this as a possible interpretation of the non-<Vu> spellings. In unstressed syllables, Greene says that there were two "phonemically relevant" (1962: 624) short vowels: one "unrounded and written *a, e, i*" and the other "rounded and written *o, u, iu*". (This view has affinities with the one I put forward earlier at Note 11, §5.3.2.1, with the exception of what I suggested there about the <a> graph).

The question of whether or not there were three consonant qualities in Old Irish is obviously a vexed one. Thurneysen, in a way, admits as much when he says (1980: §166) that "[t]here are not many examples in which the orthography of O[ld] Ir[ish] affords definite proof of the quality of the consonants, and in which the older vocalism is known for certain; later sources must be used with caution, for changes of all kinds have taken place in the interval. Exceptions are numerous. To a large extent they may be explained as analogical formations. Levelling has been very frequent" (he goes on in the remainder of this paragraph and in §§167-174 to list these). The uncertainties relating to Old Irish consonant quality are many, but they cannot, unfortunately, be resolved within the remit of the present work.

2. Only the single consonants of Old Irish are dealt with in this Figure. It should be noted, however that the following can occur as geminates (or as lengthened consonants[8,21]): all voiceless and voiced stops (voiceless /p/ excepted - see the next Note); the fricative /s/; the nasals /m/ and /N/; the lateral /L/ and the trill /R/ - on the use of capital letters for phonemes here, cf. Note 8 below. Some of these geminates had arisen in Primitive Old Irish as a result of particular instances of progressive contact assimilation involving two or three consonants in word-medial and word-final position (cf. Thurneysen 1980: §§148-155). Others arose as the output of a sound change called 'Gemination' which took place also in the Primitive Old Irish period (pre the 6th-century apocope) and which extended the distribution of geminate/lengthened

consonants to word-initial position. It too involved a process of progressive contact assimilation between the word-initial consonant of a word and the word-final consonant of a preceding proclitic or quasi-proclitic (unless these ended in /N/ in which case 'Nasalisation'- cf. Note 5 below - would occur if the following word-initial consonant was one of those affected by 'Nasalisation'). For examples of geminates or lengthened consonants produced in this way and for details of the proclitics which provided the context for its occurrence, see Thurneysen (1980: §§240-244). Stressed vowels occurring in word-initial position had [h] prefixed to them as a result of 'Gemination' (though often this does not appear in the spelling of such words in Old Irish, the prefixing of [h] to vowels in the relevant external sandhi context was recorded in Middle Irish spelling and it remains in Modern Gaelic - cf. Thurneysen 1980: §240 and Department of Celtic booklet: 14). Geminate/lengthened consonants are written singly in words where they occur before or after another consonant, or when they occur in the context of a preceding long vowel, or in word-final position after an unstressed vowel. Further, double consonant graphs are never written at the beginning of a word which is written separately from the preceding word, e.g., *co laa,* cf. *collaa* 'till day' (cf. Thurneysen 1980: §§143-147, 240). They are most consistently written between a stressed short vowel and another vowel or in word-final position after a stressed short vowel - especially [NN], [mm], [RR] and [LL]. Fluctuation in the representation in spelling of geminate/lengthened consonants during the early Old Irish period is usually interpreted as signifying a process of their being simplified/shortened. During this period all geminates are occasionally written single and spellings of the same word vary. By contrast though, the use of the double consonant graphs ⟨mm⟩, ⟨nn⟩, ⟨gg⟩, ⟨dd⟩ and ⟨bb⟩ where single consonants would etymologically be expected increases in the course of the 8th century and this is interpreted by, e.g., Thurneysen (1980: §146) and Lehmann and Lehmann (1975: §25) as being a scribal indication via the spelling that the consonants so represented are unlenited, the implication being that consonants written with a single consonant graph are so written to indicate lenition.

3. A characteristic of Old Irish, as a Goidelic, or *q*-Celtic, language, is that Indo-European /kʷ / developed to /k/ and not to /p/ as in the non-Goidelic languages (i.e., the Celtic language of Gaul and the Brythonic languages - cf. Price 1984a). In Primitive Old Irish, then, /p/ occurred only where it formed a word-initial consonant cluster with /s/, i.e., [sp] - cf. Thurneysen (1980: §226b) and further Note 4 below. In Old Irish, /p/ occurred only where it was the reflex of Pr OIr /b/ + [h], as in, e.g., ***impude*** 'besieging' (cf. Thurneysen 1980: §187) or in loan words, primarily from Latin, in many instances borrowed via Primitive Welsh, e.g., ***pennit*** 'penitence', ***polire*** 'writing tablet' or ***purgatoir*** 'purgatory' (cf. Thurneysen 1980: §§916, 920). It could therefore be affected by the sound changes described in Note 2 above and those which follow only if it was available in the sound system at the time of the

changes (mainly via borrowing) - such is indicated by its being enclosed in ( ) brackets in descriptions below of the changes - and, obviously, if it occurred in the relevant phonological context.

4. These consonants occurred in the early Old Irish consonant system mainly as a result of lenition (or, alternatively, where they existed previously, as in the case of, for instance, the voiced stops, their lexical distribution was increased). Lenition is thought to have taken place in the second half of the 5th century (cf. Celtic Department Booklet: 4). It affected single voiceless stops, the voiceless fricatives /s/ and /f/, voiced stops, the voiced nasals /m/ and /N/ (for use of capital letter here and for /L/ and /R/, cf. Note 8 below), the voiced bilabial approximant /w/ and the voiced trill /R/ and the voiced lateral /L/. They were lenited when they occurred /V- in internal or external sandhi (/N/,/R/ and /L/ were lenited in some additional contexts - for these, see Thurneysen 1980: §120). Voiceless stops /(p),t,k/ → voiceless fricatives [(f),θ,x]; voiced stops /b,d,g/ → voiced fricatives [β,ð,ɣ]; voiced nasals /m/ → [ṽ] and /N/ → /n/; /w/ → ø, but //d,n,l,r/-, /w/ → [β]; the voiceless fricative /s/ → [h], though it often → ø when word-medial, and the voiceless fricative /f/ → ø. The word-initial consonant clusters [sw] and [sp] → [f] (cf. Thurneysen 1980: §§132, 226b). After the apocope referred to in Note 1 above, and the 6th-century syncope, the conditioning contexts for lenition were lost and the outputs of the change were phonemicised. It continued, however, even after the period of the sound change 'proper', to be effective synchronically, i.e., in Old Irish, if the syntacto-phonological conditions were right, i.e., if any of the relevant consonants occurred /#- and the preceding word ended in a vowel, e.g., *alaili* ***thriuin*** 'of a certain hero', where <th>:[θ] - see Thurneysen 1980: §§232-235 for a listing of the possible contexts and further exemplification. Lenition did not affect geminate consonants (whether inherited from Common Celtic or developed thereafter) or the stops when they occurred in groups with other, usually homorganic, consonants - see Thurneysen (1980: §231) for details. Word-initial /p/ sometimes lenited and sometimes did not - cf. Note 3 above and Thurneysen 1980: §231.5. For fuller information on lenition, see Thurneysen (1980: §§118-141 and 229-235); Lewis and Pederson (1961: §§217 ff.) and Harvey (1984) - the latter article *not seen.*

5. The lexical incidence of these consonants was increased as a result of a external sandhi change known as 'Nasalisation'. Since the effects of this development differ somewhat from those expected of nasalisation (on which see, e.g., Crystal 1985: 203), an alternative term - *Eclipsis* - is sometimes used for it in handbooks on Celtic. Perhaps the term ***Nasal Mutation*** (cf. Department of Celtic booklet: 13) might be best. In any case, this Primitive Old Irish change affected consonants (and vowels) as detailed below when they occurred /#- and the preceding word ended, in Primitive Old Irish, in a nasal consonant. Thus: the voiceless stops /(p),t,k/ → voiced stops /(b),d,g/ (the nasal mutation of /p/ is often later and analogical - cf. Department of Celtic booklet: 13); the voiced

stops /b,d,g/ → [mb,nd,ŋg] (these were later assimilated to, respectively, /m/, /N/ and [ŋ]); the voiceless fricative /f/ → voiced fricative /β/; word-initial stressed vowels had /n/ prefixed to them, so, #/V/ → #/nV/; /s,R,L,m,N/ → /ss,rr,ll,mm,nn/ only when preceded by a proclitic vowel (cf. Thurneysen 1980: §236; and see Note 2 above again on geminate consonants). As with lenition, if and when the conditioning context disappeared, the output of this nasal mutation was phonemicised; likewise the process continued to be productive in the Old Irish period where the requisite context existed (though to a lesser extent than lenition since the conditioning context occurred less often that that for lenition). This nasal mutation, whether of diachronic origin, i.e., inherited from Primitive Old Irish, or of synchronic origin, i.e., continuing to operate in the Old Irish period, took place commonly, for instance, after the Accusative Singular and Genitive Plural word forms of Nouns of all genders and Nominative Singular Neuter Noun word-forms, because these had word-final /m/ in Primitive Old Irish, and after certain numerals which had the necessary word-final nasal in Primitive Old Irish, e.g., *secht* 'seven' (cf. Latin *septem*). For a fuller account of this sound change, the contexts in which it occurs and examples, see Thurneysen (1980: §§236-239) or Lewis and Pederson (1961: §§187 ff.).

6. /ʃ/ was the product of palatalisation of /s/ and could be spelt <sh> - cf. Note 1 above on consonant quality and §5.3.3.3 below and Department of Celtic booklet: 12.

7. /h/ was a marginal phoneme in Old Irish since it could occur only word-initially and syllable-initially in the second element of a compound noun, in both contexts as the product of lenition of /s/ (cf. Thurneysen 1980: §131). It also occurred word-initially when it had been prefixed to a vowel as a result of the gemination sound change, though this was not usually shown in the spelling, cf. Figure (79) below and see again Note 2 above.

8. These segments have been here represented, following the practice of scholars of Celtic, with capital letters to distinguish them from /n, /l/ and /r/ respectively. That the non-lenited /N/, /L/ and /R/, the geminated /NN/, /LL/ and /RR/ and the lenited /n/, /l/ and /r/ sets (each with, in addition, its own palatalised or velarised consonant quality - cf. Note 1 above) do seem to have been different from each other in Old Irish is suggested by their respective reflexes in Modern Irish Gaelic (and, for comparison, Modern Scottish Gaelic too - on this see, e.g., Oftedal 1956). The use of capital letters is intended to make plain this difference, while at the same time avoiding precise specification of the segments because their exact phonetic properties in Old Irish are unknown. Thurneysen describes these consonants thus: "they are articulated with much greater energy [than their lenited counterparts]: the tongue is tense [Professor William Gillies informs me that in

Middle Irish descriptions, the consonants are described as tense or tight], with the blade spread out fan-wise, and the other speech-organs also, such as the soft palate, seem to articulate with greatly increased energy. .... [They] seem to have been sounded longer, as well as more energetically, than the[ir lenited congeners]...." (1980: §§135, 136). Their distinguishing qualities seem, then, to have been duration and/or intensity or force of articulation. For a very good (and probably helpful) description of the articulation of the various reflexes of Old Irish /N/, /L/ and /R/ in relation to /n/, /l/ and /r/ and their consonant quality differences and contexts of occurrence in Old Irish and the Gaelic of Leurbost, see Oftedal (1956: 122-129, 160; 89-93, 123-125 and 126-129 respectively).

9. [ŋ] occurs only /-[g] (cf. Thurneysen 1980: §191).

5.3.3.2 Spelling and Early Old Irish Consonants

The near-exhaustive (certainly exhausting!) tracing and detailing of the evolution of vowels and consonants in Latin and the accompanying evolution, or lack of it in some instances, of the spellings for vowels and consonants undertaken above in §§5.2.2.1 - 5.2.3.5 above was essential because the Latin spelling system(s) and their graph~phoneme correlations (in all positions in the word) underpin those of both Old Irish and then Old English. When the differences between the Late Latin/Early Romance phoneme systems and those of Early Old Irish (cf.§§ 5.2.2.1 - 5.2.3.5 and §§5.3.2 and 5.3.3 above) are considered, however, it is clear that a different approach needs to be taken to the spelling of Early Old Irish consonants. Latin required, and had, symbols for affricates and approximants, for instance. Old Irish did not need these, but it did need more spelling symbols for fricatives than the Latin spelling system did or could offer. Latin did not have the two (or three) different consonant qualities or the different varieties of /l/, /n/ and /r/ which existed in Early Old Irish and so could not provide Early Old Irish scribes with the means of expressing these in spelling. As a consequence of deficiencies like these in the Latin spelling system, quite extensive modification/adaptation of the Latin spelling system had to be

undertaken by scribes of Early Old Irish. Given this factor and, in addition, that the present investigation is focussed on the question of putative influence of the spelling systems of Latin and of Early Old Irish on that of (early) Old English, it seems most profitable (and it would certainly be most economical) to approach the subject of the spelling of Early Old Irish consonants from the angle of spelling 'supply' meeting (or failing to meet) phonological 'demand'. This is, therefore, the approach now adopted.

5.3.3.3 Early Old Irish Consonant Spellings

Cross-reference should be made where necessary between this Section and §5.3.3 - §5.3.3.1 above; Thurneysen's paragraphs on spelling generally could also be consulted (1980: §§24-33, as well as §123), in addition to those cited above in the Notes accompanying Figures (77) and (78). Segments represented in Figure (79) below are phonemes unless otherwise specified. Although geminate/lengthened consonant spellings have been dealt with earlier (see Note 2, §5.3.3.1), it was thought a spelling out of their distribution here might be helpful. As discussed previously (§§5.3.3.1, 5.3.3.2) consonant quality is in general indicated by the use of vowel graph symbols. In the case of the velar fricative /x/ and the dental fricatives /ð/ and /θ/, however, this can be indicated by the use of other-than-expected graphs - see Figure (79) below. An asterisk prefixed to a phoneme indicates that the graph in question most commonly represents that particular phoneme in the stated position in the word; for present purposes *medial* means primarily /V-. A number in square brackets following a phoneme refers the reader to the relevant paragraph in Thurneysen (1980) where information on spelling judged to be important, but additional to that given already, will be found.

(79)

Graph(s) used	Position in Word	Represent these Consonant(s)
<b>	Initial	/b/; /β/.
	Medial	*/β/; /b/.
	Final	*/β/; /b/.
<bb>	Medial	/b/; /b(b)/ [§31c].
	Final	/b/; /b(b)/ [§31c].
<c>	Initial	/k/.
	Medial	*/g/; /k/.
	Final	*/g/; /k/.
<cc>	Medial	*/k(k)/; /gg/ [§149].
	Final	/k(k)/.
<ch>	Medial	/x/.
	Final	/x/.
<cht>	Medial	[xt] [§28].
<d>	Initial	/d/; /ð/.
	Medial	*/ð/; /d/.
	Final	*/ð/; /d/; /θ/ [§130b].
<dd>	Medial	/d/; /d(d)/.
	Final	/d/; /d(d)/.
<f> (see also <ph>)	Initial	/f/.
	Medial	/f/.
	Final	/f/.
<ḟ>/<fh>	Initial	ø [§33; §§231.7].
<g>	Initial	/g/; /ɣ/.
	Medial	*/ɣ/; /g/.
	Final	*/ɣ/; /g/; /x'/; /xᵘ/ [§130b];
<gg>	Medial	/g/; /g(g)/.
	Final	/g/; /g(g)/.
<h> (see also <ṡ> and <sh>)	Initial	ø [§25]
<k>	Initial	/k/ [the graph <k> is very rare - §23].
<l>	Initial	/l/; /L/.
	Medial	/l/; /L/.
	Final	/l/; /L/.
<ll>	Medial	/L(L)/.
	Final	/L(L)/.
<m>	Initial	/m/.
	Medial	/m/; /m̃/.
	Final	/m/; /m̃/.

(Figure 79 continues over)

<mm>	Medial	/m(m)/.
	Final	/m(m)/.
<ṁ>	Final/Initial	/m/ [§33].
	Medial	/m/ [§33].
<n>	Initial	/n/; /N/.
	Medial	/n/; /N/.
	Final	/n/; /N/.
<nn>	Medial	/N(N)/.
	Final	/N(N)/.
<n> + <g>	Medial	[ŋ].
	Final	[ŋ].
<ṅ>	Final/Initial	/n/; /N/ [§33].
	Medial	/n/; /N/ [§33].
<p>	Initial	*/p/; /f/.
	Medial	*/b/; /p/.
	Final	*/b/; /p/.
<pp>	Medial	*/p(p)/; /b(b)/ [§149].
	Final	/p(p)/.
<ph> (see also <f>)	Initial	/f/.
	Medial	/f/.
	Final	/f/.
<qu>	Medial	/k/ [<qu> rare: §23].
<r>	Initial	/r/; /R/.
	Medial	/r/; /R/.
	Final	/r/; /R/.
<rr>	Medial	/R(R)/.
	Final	/R(R)/.
<s>	Initial	/s/.
	Medial	/s/; /ʃ/.
	Final	/s/; /ʃ/.
<ss>	Medial	/s(s)/.
	Final	/s(s)/.
<sh> (see also <h>)	Initial	/h/.
<ṡ> (see also <h>)	Initial	/h/ [§33].
<t>	Initial	/t/.
	Medial	*/d/; /t/.
	Final	*/d/; /t/.
<tt>	Medial	*/t(t)/; /d(d)/ [§149].
	Final	*/t(t)/; /d(d)/ [§149].
<th>	Medial	/θ/.
	Final	/θ/; /d/.
<x>	Medial	[xs] [§5].
<z>	Medial	/s/ [<z> very rare: §23].

CHAPTER 6:

CONTINUATIONS AND BEGINNINGS

6.1 *CONTINUATIONS - ABCs: THE PRE OLD ENGLISH 'DEMAND'*

6.1.1 *Introduction*

In the last Chapter, the 'supply', *viz.*, the reconstructed sound values of Early Romance and of Early Old Irish and their associated spellings was provided. It remains now to specify the 'demand', *viz.*, the reconstructed sound values of Pre Old English which required to be written down for the first time using the 'supply' available. Pre Old English refers to the Old English of the period, defined at various points in earlier Chapters, but essentially that when Old English first began to be written down - between c. 650 and c. 750 A.D. This dating allows for some 'settling down' between the very first writing down of Old English (cf. further §6.2 below) and the establishment of some kind of fairly regular system of graphic~phonic correlations for the spelling of Old English.

6.1.2 *Prolegomena to the Reconstruction of the Pre Old English Vowel System*

A synchronic Pre Old English sound system incorporating the phonemes and primary allophones which, it is presumed, were present in any or all of the Old English dialects may be postulated using (1) the evidence derivable from the reconstruction of phonological developments which, on the basis of comparison between Germanic languages cognate with/related to Old English and between these and non-Germanic, non-cognate languages such as Latin (recall the discussions in §§1.5 and 1.6), seem to have occurred and (2) the evidence obtainable by judicious interpretation of the spellings in the earliest records of written Old English (cf. Chs. 2 and 3 *passim*). This reconstruction of the vowel

system would take into account the reflexes of phones, such as /i:/, carried over with no discernible intervening alteration from Proto Germanic to Proto Old English (Old English as postulated at the time of the first Anglo-Saxon settlements in Britain, c. 450 A.D.) . It would also include the reflexes of phones which apparently altered between the Proto Germanic and the Proto Old English periods and/or between Proto Old English and Pre Old English and any new phones thereby arising. These alterations were in some cases the result of:

(a) Isolative, context-free phonological changes which are here briefly described -

1. Pro Gmc /ai/ → Pre OE /ɑ:/ (cf. Campbell 1959: §§132.2, 134).

2. Pro Gmc /iu/ → Pre OE /i:u/

   Pro Gmc /eu/ → Pre OE /e:u/

   Pro Gmc /au/ → Pre OE /æ:u/

   For these changes, cf. Campbell (1959: §§132, 135-137). Campbell does not, however, explain the lengthening of the first element of each of these diphthongs between the Proto Germanic and the Pre Old English periods. It may be that in Proto Germanic these were di-phonemic sequences, *viz.*, /i/ + /u/, /e/ + /u/ and /a/ + /u/ and that the short /i/, /e/ and /a/ respectively may have been lengthened to conform to what seems to have been 'acceptable' syllable structure in Old English, namely, long stressed vowels in syllable-final position are acceptable, but syllable-final short stressed vowels, such as the Pro Gmc /i/, /e/ and /a/ would have been are not (cf., e.g., Colman 1986: 228).

3. Pro Gmc /a:/ → Pre OE /æ:/ (i.e., /ǣ/) in West Saxon, and possibly in Kentish. In those dialects where Pro Gmc /a:/ did not become /æ:/, it developed to /e:/. In all dialects, in the context of a following nasal consonant, Pro Gmc /a:/ → /o:/ (cf. Campbell 1959: §§129 and f.n. 1, as well as Hogg 1988: 194-197 for the suggestion that Kentish might, like West Saxon, have had /æ:/ as the reflex of Pro Gmc /a:/).

In other cases, alterations made to the vowel system between the Proto Germanic and Proto Old English periods arose as a result of the output of:

(b) Combinative, context-conditioned phonological changes which had apparently occurred by around c. 700 A.D.. There now follows a brief summary of these; where / / brackets have been used to enclose the output of a sound change this signifies that there was available in the vowel system already a sound value with which it could, and did, merge, i.e., the output of the sound change was phonemicised. Where [ ] brackets have been used this signifies that phonemicisation of the output thus enclosed was not possible because the conditioning context remained and/or the sound value in question was new to the system and therefore had nothing to merge with, with the result that phonemic contrasts could not be established; such outputs remain then as allophonic variants of the phoneme with which they are associated until any of all of the enumerated circumstances change:

1. Pro Gmc /a/ /-N → Pro OE [ɑ̃] - on the value of this vowel, see King (In Press) and cf. Campbell (1959: §130).

2. When not /-N, Pro Gmc /a/ → Pro OE [æ] by 'First Fronting/Anglo-Frisian Brightening' (cf. Campbell 1959: §131-132).

3. Pro OE /i/ → Pre OE [iu]

Pro OE /i:/ → Pre OE /i:u/

Pro OE /e/ → Pre OE [eu]

Pro OE /e:/ → Pre OE /e:u/

Pro OE [æ] → Pre OE [æu]

Pro OE /æ:/ → Pre OE /æ:u/.

These developments were brought about by the sound change known traditionally as 'Breaking'. The conditioning contexts were: /-L + C or /-/x/ (+ C). Breaking of Pro OE /i/ and /e/ also took place /-/w/, but in this context /æ:/ and [æ] were retracted to /ɑ:/ and [ɑ] respectively. Non-West-Saxon dialectal differences have not been treated in this short account - Campbell (1959: §§139-156), for instance, should be consulted for information on these and for further information on the developments outlined here.

4. 'Retraction' of [æ] → [ɑ]/'Restoration' of [ɑ] /-$C_1(C_1)$V[+ back] (cf. Campbell 1959: §§157-163, though note that he refers to this retraction as 'Restoration').

5. *i*-umlaut which operated /-$ /i,j/ thus:

Pro OE [u] → [y]

Pro OE /u:/ → [y:]

Pro OE /o/ → [ø]

Pro OE /o:/ → [ø:]

Pro OE [ɑ] /-N → [æ] → /e/

Pro OE /ɑ:/ → [æ:] (this has here been treated as an allophonic output because only in West Saxon and possibly in Kentish - cf. (a) 3. above - could it have been phonemicised)

Pro OE [æ] → /e/

Pro OE [æu] → [iə] or [iy]

Pro OE /æ:u/ → [i:ə] or [i:y]

Pro OE [iu] → [iə] or [iy]

Pro OE /i:u/ → [i:ə] or [i:y]

Cf. Campbell (1959: §§190-204) and, for the values [i(:)y] above, cf. Colman (1985a: §3).

Information about and descriptions of these changes will, in many instances, be found at points in Chapters 1, 2 and 3 above. It could be supplemented by that obtainable in the relevant Sections of works like the following which have been consulted in the preparation of the Figures of Vowel (and Consonant) Systems which follow below: Campbell (1959); Coetsem and Kufner (1972); Hogg (MS.); Kuhn (1961); Lass and Anderson (1975); Nielsen (1981); Prins (1974); Prokosch (1939); Schibsbye (1972); Sweet (1888); Wełna (1978); Wright and Wright (1925).

On the basis of the aforegoing, it is reasonable to suppose that the reconstructed vowel system in the Figure that follows would have been the one that existed in and towards the end of the 7th century. Though the treatment here has been of vowels, similar considerations apply also to the reconstruction of the Pre Old English consonant system. When, therefore, scribes first began to write Old English with the Roman-letter alphabet, it may be equally reasonably assumed that it was the vowels and consonants of the systems presented below that they would attempt

to represent with the spelling 'supply' (as previously defined and described) available to them.

6.1.2.1 The Pre Old English Vowel System Reconstructed

(80)

RECONSTRUCTED VOWEL SYSTEM FOR

PRE OLD ENGLISH

Stressed Vowels

Short Monophthongs		Short Diphthongs	
/i/,[y]	/u/	[iə]/[iy]	[iu]
/e/ [ø]	/o/		[eu]
[æ]	[α]		[æu]
Long Monophthongs		**Long Diphthongs**	
/i:/,[y:]	/u:/	[i:ə]/[i:y]	/i:u/
/e:/ [ø:]	/o:/		/e:u/
/æ:/	/α:/		/æ:u/

Unstressed Vowels

Short Monophthongs

/i/	/u/
/e/	/o/
[æ]	[α]

6.1.3 *Preliminary to the Reconstructed Pre Old English Consonant System*

Applying the same criteria invoked earlier in relation to the Pre Old English vowel system, only phonemes and primary allophones are represented in the Figures below. Also following previous practice, explanatory notes correlating with superscript numbers in the Figures will be found after the Figures. For information about the various sound changes involved in the derivation of the system other than that provided in the notes and in Chapters 2 and 3 of the present work already, the works cited at §6.1.2 should be consulted and in addition: Kuhn (1970) and Moulton (1972).

(Figure 81 begins over)

6.1.3.1 The Pre Old English Consonant System Reconstructed (81)

RECONSTRUCTED CONSONANT[1] SYSTEM FOR

PRE OLD ENGLISH

Single Consonants

ARTICULATION Manner / Place		STOP	AFFRIC-ATE	FRIC-ATIVE	NASAL	LATERAL	TRILL	APPROXI-MANT
BILABIAL	- V	p						
	+ V	b		β	m[4]			
LABIO-DENTAL	- V			f				
	+ V			[v]				
DENTAL	- V			θ				
	+ V			[ð]				
ALVEOLAR	- V	t[2]		s				
	+ V	d[2]		[z]	n[1,4]	l[1,4]	r[4]	
PALATAL	- V							
	+ V							j
VELAR	- V	k, [k']		x				
	+ V	g[3], [g']		γ	[ŋ][5]			
LABIAL-VELAR	- V							
	+ V							w
GLOTTAL	- V			[h]				
	+ V							

6.1.3.2 Explanatory Notes to Figure (81)

1. No notes as such are included here on the fricatives since these were treated at length earlier; for information on their derivation from Proto Germanic and their distribution in Early Old English (so far as can be told this is substantially the same as in Pre Old English), etc., reference should be made to

§§2.2 ff., 2.3 ff. and 3.2.2.1. Likewise, the palatal allophones [k'] and [g'] have already been discussed in detail - cf. again §§2.4 ff.. For the approximants /j/ and /w/, see §3.4.3 above.

2. Segments marked thus could alternatively be classified as dental: the place of their articulation in (Pre) Old English cannot be exactly determined.
3. [g] at the Pre Old English stage occurs only /[ŋ]-. By the late Old English period, it appeared also /#- + V [+ back], cf., e.g., Campbell 1959: §50.4, though cf. also Prokosch 1939: §24.c.(3) and accompanying note - Prokosch suggests, interestingly, that Anglian dialects had, perhaps from the Continental Germanic period, word-initial [g] corresponding to a Southern (especially West Saxon) word-initial fricative, presumably /ɣ/ in Proto Old English and, with split and merger, velar /ɣ/ and palatal /j/ in Pre Old English.
4. These phonemes seem to have had syllabic allophones, see Campbell (1959: §400); Hogg (MS.: §§2.69, 2.72); Wright and Wright (1925: §219) and especially Kuhn (1970: §§6.1, 6.11, 6.2, 7.1 and 7.2).
5. [ŋ] occurs only /-[g,k] (cf. Campbell 1959: §50.2).

6.1.3.3 Pre Old English Geminate/Lengthened Consonants

For present purposes, these are treated as geminate consonants, though, cf. Footnote 8, they could probably equally plausibly be regarded as lengthened consonants. Those single consonants with superscript 1 in the preceding Figure could, when geminated, also be classified as having a dental rather than an alveolar place of articulation. It could be argued that geminate consonants had allophonic status in Old English because they could occur only after short syllables (cf. Prokosch 1939: §§22, 30; Campbell 1959: §§407-408; King 1986: 66-67, esp. (i), (iii) and (iv)). Single consonants, however, occur also after short syllables and could, therefore, contrast with geminates, e.g., /pp/ ≠ /p/ or /θθ/ ≠ /θ/ (realised as [ð] word-medially) - see Hogg (MS.: §§2.48 - 2.78) where minimal pairs are cited *passim.* Geminate consonants also contrasted with each other word-medially, e.g., /pp/ ≠ /ff/ - see again §3.2.2.1 where reference is made to instances of such contrasts provided by Anderson (1988a). Phonemic status for geminates has, therefore, been assumed in

the following Figure, subject to the provisos made at §§2.4 ff. and with the exception of [k'k'] and [g'g'] whose occurrence is context-conditioned, cf. the Section just mentioned.

(Figure (82) begins over)

(82)

RECONSTRUCTED CONSONANT SYSTEM FOR PRE OLD ENGLISH

Geminate Consonants

ARTICULATION Manner / Place		STOP	AFFRIC-ATE	FRIC-ATIVE	NASAL	LATERAL	TRILL	APPROXI-MANT
BILABIAL	- V	pp	.....	.....	.....	.....	.....	.....
	+ V	bb			mm			
LABIO-DENTAL	- V	.....	.....	ff	.....	.....	.....	.....
	+ V			.....				
DENTAL	- V	.....	.....	θθ	.....	.....	.....	.....
	+ V			.....				
ALVEOLAR	- V	tt	.....	ss	.....	.....	.....	.....
	+ V	dd		.....	nn	ll	rr	
PALATAL	- V	.....	.....	.....	.....	.....	.....	.....
	+ V							
VELAR	- V	kk [k'k']	.....	xx	.....	.....	.....	.....
	+ V	gg [g'g']		.....				
LABIAL-VELAR	- V	.....	.....	.....	.....	.....	.....	.....
	+ V							
GLOTTAL	- V	.....	.....	.....	.....	.....	.....	.....
	+ V							

6.1.4 *'Demand' and 'Supply'*

The comparison and contrast of the Latin and Irish spelling 'supply' with the 'demand' of the early Old English sound system points up various adequacies and shortfalls. Into the first category fall the spelling symbols for the stops, nasals, laterals and trills. Both the Latin and the Irish 'supply' were sufficient for Old English needs in these phonetic areas. Given that Early Old Irish had no approximants, this is an area of obvious shortfall with regard to Old English 'demand' and it could only be met from Latin resources (unless, of course, the Early Old Irish syllabic, vocalic elements /i/ and /u/ were judged to be a close enough phonetic match to the Pre Old English /j/ and /w/ to be given representation in Early Old English spelling by the graphs <i> and <u> used in Early Old Irish for the syllabics). Italo-Romance had rather fewer fricatives that either Early Old Irish or Pre Old English (or Gallo-Romance, for that matter) and this would seem to be one area of obvious shortfall where both Pre Old English and Early Old Irish are concerned. As seen already at §5.3.3.3, except in the representation of the voiceless fricatives /θ/ and /x/ - for which two Latin symbols <th> and <ch> respectively were taken over and adapted (cf. Harvey 1989 on this probably Irish innovation) - the Irish response to the representation of voiced fricatives was in general to use the symbols already in use for voiced stops. This in turn occasioned the complex distribution patterns (which may have seemed fairly perplexing to readers of manuscripts containing them) whereby the voiceless stop symbols were used word-medially and word-finally to represent the voiced stops, as well as the voiceless ones. Aside from this peculiarity of Old Irish usage, brought about by a phonological situation which did not pertain in Early Old

English and so did not require similar orthographic representation, Early Old English spelling usage with regard to fricative representation bears close resemblance at many points to that of Early Old Irish, especially in relation to the graphs <h> and <ch> for for the velar fricative /x/ (cf. Campbell 1959: §57.3) and <d> and <th> for both of the dental fricatives [θ] and [ð] especially in word-final position (cf. Campbell 1959: §55 and f.n. 3). Bilabial fricative representation in Early Old English could derive, on the face of it, from either Latin or Old Irish - a close examination of their use and distribution in Early Old English texts would be needed before the matter could be clarified, and even then, clarification is by no means certain. Cases of 'over-supply' occur too. Neither Pre Old English nor Early Old Irish had any need for the symbols <(i)gn> used to represent the palatal nasal or <il(l)>/<gli> for the palatal lateral found in Early Romance.

With regard to vowel spelling 'supply' and 'demand', the Early Old Irish vowel system, aside from the largish number of diphthongs it had, seems to bear closer affinities with the Pre Old English one than does that of the Early Romance one and so could be expected to be a more likely source of vowel and diphthong spellings for Pre Old English. The use in the Irish system of <Vo> spellings for diphthongs with /V:u/ structures (like /i:u/, /e:u/ and /a:u/ brings to mind the Early Old English representation of such diphthongs with <Vo> spellings (cf. Campbell 1959: §§276, 278). Similarly, if it is recalled that the Latin spelling 'supply' available from Early Romance sources did include the graph <y> which later supplanted Early Old English <ui> spellings to represent the output [y(:)] of *i*-umlaut, the appearance in Early Old English texts of digraph spellings like <oi> and <ui> for representation

of the outputs [ø(:)] and [y(:)] of *i*-umlaut, cf. Campbell (1959: §§42, 67, 198, 199) looks at first glance to be a usage parallel to that of Early Old Irish. In Old Irish these digraphs represented diphthongs, but this could be an instance of adaptation aided by an analysis based on perceived phonetic similarity (leaving aside vowel length which was not consistently represented in spelling in Old Irish, Latin or Old English in any case) between the elements of the Early Old Irish /o:i/ and /u:i/ and the Early Old English *i*-umlaut ouputs. Such an identification might well have been encouraged by the usage already familiar to the Anglo-Saxons from their adaptation of the runes for /u(:)/ and /i(:)/ in the runic alphabet into one runic symbol which combined both runes and presumably the fusing of both their phonological values which came about because of the operation of *i*-umlaut - cf. King (1986: 57). In the light of the <ea>/<ia> digraph usages discussed earlier in the present work (Ch. 3: *passim*, see also Campbell 1959: §280), an exploration of <Va> spellings, such as occur in Early Old Irish usage, might also be fruitful in attempts to quantify and weigh up Latin *versus* Old Irish influence on the establishment of a spelling system for writing Early Old English.

6.2 ***BEGINNINGS***

It was pointed out earlier at §4.1 that the axioms underlying traditional statements about the origins of the (Early) Old English spelling system required "demonstration" because they are the *sine qua non* of Old English spelling studies. This "demonstration" has now been given (in the preceding two Chapters). It will allow axiomatic statements like those quoted in §4.1 to be properly assessed and either taken on board

or discarded. It has also provided answers to the unanswered questions posed in §4.1. On the basis of the "demonstration" provided here, firmly-rooted statements about the origins (and development) of the Old English spelling system can be made. It remains now to exploit the full worth of the findings of Chapters 4 and 5 or, in alternative phrasing, to build on these firm foundations.

6.2.1 *Building Blocks*

The preliminary comparison of 'supply' and 'demand' just undertaken revealed several areas of consonant and vowel spelling that would be likely to be interesting in various ways. But further work is needed in order to gain solid information about the Old English spelling system, especially in its earliest stages, and about Old English spelling practice. A surface comparison like the one above does not allow us, for instance, to assess the relative degree of adoption and adaptation of the Latin and/or Irish spelling systems that was necessary by scribes attempting to write Pre Old English and establish a usable spelling system. The next logical step, therefore, would be to assemble a body of data consisting of some of the earliest written Old English texts and then to examine in detail the graphs used in the texts and try to ascertain their phonological correlates. This latter stage would bring into play the reconstructed Early Old English sound system and would require the distribution of the graphs used in the Old English texts to be matched up with the graph~phone usage evidenced in Late Latin/Early Romance and Early Old Irish. The interpretation of the findings thus arrived at would then give a clearer picture than we have at the moment of the extent of adoption and adaptation of the Latin and/or Irish spelling systems undertaken by scribes of Early Old English - not just with

regard to individual graph~phone correlations, but also *vis-a-vis* general approaches to spelling practice. An investigation like this might at least begin by focussing on, say, fricative consonant spellings or stressed vowel digraph spellings, or both, since these areas seemed likely to be of interest on first inspection.

Where Early Old English is concerned, an appropriate corpus of Early Old English data for examination along the lines just described would be made up of 7th and 8th century Old English. It could, therefore. include the Old English personal name material from both the 'Moore' and 'Leningrad' manuscripts of Bede's *Historia Ecclesiastica* (on this, see, e.g., Ström 1939; Anderson 1941), as well as the texts of *Cædmon's Hymn* - all mid 8th century. The potential drawbacks of the use of personal name data as evidence for Old English spelling usage and common-word Old English phonology would, of course, have to be borne in mind; these have been investigated and put forward by, for instance, Colman in many publications, but see especially (1988b: §§1.2 - 4), (1990: §§3, 4, 4.2) and (In Press). Further Old English personal name data spanning the second half of the 7th century and the end of the 8th should be drawn from a selection of the earliest, original manuscripts of Charters. The material in the 7th century charters has the virtue of being the earliest written Old English which survives to us and it is precisely dateable, but its potential linguistic value would have to be safeguarded by applying to each charter those criteria necessary for establishing (a) its authenticity (i.e., making sure that the linguistic data in the charter were written at the time of the date borne by the charter and are not the product of a later copy, or copies) - cf. Sweet (1995: 421); and (b) its provenance (the geographical area/place where it was

written, rather than merely the place where it could be supposed, from the name of the land-granting King or Church personage, to have been written). Some of the problems which arise in respect to the latter are described in Sweet (1885: 422 -423). On some of the problems associated with the use of Anglo-Saxon charters as a source of Old English linguistic data - see King (In Press: §§2.3 - 2.4.2, esp. §2.3.2) and Brooks (1984: *passim*); on how they can be tackled, or at least lessened, see King *op. cit.* and especially Brooks 1984 (particularly those pages referred to in King). Having set the project on a sound footing by taking full account of the possible difficulties involved in (a) using personal name data as a source of linguistic evidence and (b) drawing such data from charters, the personal name data (functioning as personal names or as elements in place-names) in the following charters would form a potentially invaluable part of the proposed corpus. This is the case for several reasons. The data include earlier and later variant forms of the same name and sometimes such forms also occur in charters ostensibly from differing dialect areas (though cf. Ch. 2 above on *dialect*). They could possibly offer information, then, on the diachronic development of the Old English spelling system, e.g., how it coped with phonological changes which occurred after it was established, such as the palatalisation of word-initial [sk] → [ʃ], as well as on dialectal linguistic features. The latter is potentially of great interest from the point of view of estimating Irish *versus* Latin influence on the (Early) Old English spelling system, in view of the traditional association of Irish influence with the Northern dialect areas (particularly Northumbria) and of Roman influence with Southern dialect areas (mainly Kent) - Wells' (1972) paper on the spelling of early Frankish personal names

would provide a fascinating source of comparison at this point. The discussion in Chapter 4 of such matters should lead us to question this assumption in any case, but the name data may well throw more light on the matter, especially when the palaeographical evidence of the various scripts used in the manuscripts is also taken into consideration (cf. the traditional association of the Insular Minuscule script with the Irish and thence with the Northern Anglo-Saxons and of the Uncial script with Rome and/or Gaul and thence with the Southern (Kentish) Anglo-Saxons).

6.2.1 *Personal-name Data drawn from some of the Earliest Charters written in Old English*

The letter B plus number prefaced to each of the charter entries refers to its entry number in Birch's (1885-1893) collection of charters, *Cartularium Saxonicum.* Variant readings of individual names appear following them in [ ] brackets; [ ] also enclose self-evident editorial comments. Italicised data are place names containing personal names which would also probably be worth analysis. Cross references to Sweet's (1885) edition of the charters, as well as to Sawyer's (1968) *List and Bibliography* have been made. Details of probable dialect, of the individual manuscripts and the scripts in which they are written have also been collected and collated (for the latter two, by references to individual entries in Bruckner and Marichal's (1963-1967) *Chartae Latinae Antiquiores* and Lowe's (1934-1971) *Codices Latini Antiquiores*). While it would, ideally, have been appropriate to have included all of this information here, the present circumstances of writing necessitate their omission. The data are of great linguistic value and so it is felt that their being presented here without the desired apparatus is better than their not being presented at all.

6.2.1.1

PERSONAL NAMES IN 7TH AND 8TH CENTURY OLD ENGLISH CHARTERS

1. B. 45 LOTHARIUS, King of Kent, to ABBOT BERCUALD; grant of land at þestanae; 679.

hlotharius

bercuald

theodori

ędrico

hlothari

gumbercti

gębredi

osfridi

irminredi

ædilmæri

hagani

ældredi

aldhodi

gudhardi

bernhardi

uelhisci.

2. B. 97 ÞIHTRED, King of Kent, to THE CHURCH OF ST. MARY AT LYMINGE; Þleghelmestun [Þieghelmestun]; 697.

uuihtredus

Þleghelmes tun [Þieghelmes tun]

meguuines paeð

ruminingseta (?)

berhtuualdum [berichtualdum]

berhtuualdus [berichtualdus]

uuihtredi [uihtredi]

aethilburgae [aedilburgae]

enfridi

botta

frodi

adda

aedilfridi [ædilfridi]

bernhaerdi

aehcha

egisberhti

hagana

theabul

aesica [aessica].

3. B. 98 ÞIHTRED, King of Kent, to THE CHURCH OF ST. MARY AT LYMINGE; *Þleghelmestun* and *ruminingseta*; 697.

[N.B. Identical to B. 97 except for an extra paragraph in Latin and the following personal names with forms which vary from those in B. 97]

meguuines paed
berhtuualdum
berhtuualdus
aesica
egisberhti.

4. B.148 ÆÐELBERHT [ÆTHILBERHT], King of Kent, to DUN, Presbiter Abbot; liminge and sandtun; 732.

aethilberhtus
dun
mariae
aethilberhtus
tatuuinus
aethilberhti
albinus
aethilberhto
balthhaeardi
bynnan

aeanberhti

aethiliaeardi.

5. B.154 **ÆÐELBALD [ÆTHILBALT], King of the Mercians, to the EARL CYNIBERHT; husmere (land for a monastery); 736.**

aethilbalt

cyniberhtte

aetdilbalt

uuor

uuilfridus

aethilbaldo

aethilric

ęthilbal(di) [æthilbal(di)]

ibe

heardberht

ebbella

onoc

oba

sigibed

bercol

ealduuft

cusa

pede

edilbalt

cyniberhttę [cyniberhtæ].

6. B.160 **ÆÐELBERHT [ÆTHILBERHT], King of Kent, to [THE CHURCH OF ST. MARY'S AT LYMINGE MONASTERY] of a fishery in the limin aea; 741 for 740 (?).**

aethilberht

cuthberhto

aethilberhtus

cuthberhtus

balthhardi

aeðelhuni

dunuualhi

duunuuallan

aldberhti

aethelnothi.

7. B.187 **EANBERHT, UHCTRED and ALDRED [with the consent of Offa, King of Mercia], to ABBOT HEADDA; onnanford, (Worcs.); 759.**

offan

eanberht

uhctred

aldréd

h(e)adda

offa

eanberht

uhctred

aldred

milred

tilhere

cusa

acan

(dil)ran

bobban

bynnan

berhtuuald

tilberhti.

8. B.199 **EARDULF, King of Kent, to HEABERHCT, Abbot of Reculver; perhamstede; 765.**

eardulfus

heaberhcto

eadb[p = written over an erasure]erhtuo

earduulfi

eardulfus

earduulfus

folcuuinis

byrnhames

uuihtbrordis

uuealhhunes [uuealhunes]

aethelnothes.

9. B.201 **OFFA, King of the Mercians, to ABBOT STIDBERHT; land on the River Lidding, in exchange for land at Þicham in Chiltern; 767. plus Endorsement by PILHEARD in a Council at Cælichyth; 799 - 802.**

offa

stidberhtae [stidberhtæ]

stidberht

offa

gengberht

eadberht

cuuetfert

aethelbaldi

offani

pilheardus

coenuulfi

coenuulfus

æthelheardus

unuuona

aldulf

utol

eadulf

deneberht

haðoberht

cyneberht

uuigberht

alhheard

tidferð

uuihthun

beonna

folðred

coenuulf

heaðoberht

æðelmund

esne

heardberht

ceolmund

þigga

cydda

cuðred

osulf

beornnoð

cynhelm.

10. B.203 **UHTRED, Regulus of the Huiccii, to AETHELMUND [ÆTHELMUND]; eastun, on the saluuerpe, (Worcester); 770.** [This Charter also contains the follows Old English data: cymedes halh; huitan stan; readan].

uhtredus

æðelmundo

ingeldi

æðelbaldi

offani

æðelmundo

offa

mildredus

uhtredus

aldredus

eada

brorda

eadbald

cyneðryð

ecgferð

æfflæd

offani.

11. B.225 CYNEÞULF, King of the Saxons [i.e., Wessex], to Earl BICA; bedeþinde, Wilts.; 778.

cyneþulf

bican

æðelmodus

egcbaldus

scillinges

ham

æðelnoðes

ceolbrehtes

æðelmundes

....(ser)des [Birch: ....ferdes; he cites Kemble form wigferðes in a footnote]

fad(ol) [Birch: gives in a footnote the form given by Kemble fæder]

boþine }
eatani } [Not in Sweet]
berhtþaldi }.

12. B.227 EGCBERHT, King of Kent, to DIORA, Bishop of Rochester; bromgeheg and scaga; 778.

[N.B. After these names is a paragraph entirely in O.E. giving the geographical location of the land granted, e.g., on eastan, be suðan, etc.].

ecgberhtus
dioran
ecgberhtus
iaenberhtus
escuuald
uban
boban
uualhard
ubban
aldhun
sigired
esni
eaniardi.

13. B.230 **OFFA, King of the Mercians, to DUDDONUS; *sulmonnes* burg, [on the River Windrush, near Bourton-on-the-Water, Gloucs.]; 779.**

[N.B. This MS. very damaged down right margin, so lacunae in text indicated by letters in ( ) below].

offa

dud(d)ono

inwines burg

offan

offa

eardber(h)tus

ceolulfus

tilherus

geberh(tu) [Birch: ...geberhtus]

aldberhtus

botuuine

brordan [broddan with r written over first d]

berhtuua(l)di

esne

eanberht [Birch: eanberhti]

ealdbaldi

esn(e)

brordan

bynni

eadbaldi [in Sweet, but not in Birch]

godmundes leah.

14. B.254 OFFA, King of the Mercians, to OSBERHT; DUNINGCLAND, (Kent); 788.

offa

osberhto

offa

ianberhtus

hygeberht

heardraed

aethilmod

cyneberht

unuuano

uuaer

hathor

ealgheard

ceolmund.

15. B.274 OFFA, to ÆÐEDLMUND; uuestburg (Gloucs.); 793 - 796 [Sweet gives the date: 791 - 796].

offa

aeðelmundo

offa

ecgferð

hygeberhti

æðelheardi

ceolulfi

haðoredi

unu(u)ona

cyneberhti

deneferði

ceolmundi

coenþalh

uuermundi

alhheardi

ælfhuni

uuiohtuni

alhmund

beonnan

uuigmundi

utel

brorda

bynna

alhmund

esne

ædelmund

uuigberht

heardberht

uuynberht

ceolmund

ubba

lulling

eafing.

16. B.289 COENÞULF, King of Mercia, to OSÞULF; hrempingÞiic [in exchange for land at bobingseata, with subsequent grant by OSÞULF to the monastery at liminge (Kent)]; 798.

osÞulfo

coenuulf

aeðelhard

hygeberht

haðored

eaduulf

utel

alhhard

Þiohthun

tidfrið

alhmund

beonna

uuigmund

forðred

brordan

heaberhti

esne

Þigberhti

aeðelmundi

eadgari

uuicggan

ciolmundi

beornnoði

heardberhti

cyddan

osuulf

beornðryðe.

N O T E S TO CHAPTERS 1 – 6

1. The fact that, due to the operation of the 'Scottish Vowel Length Rule', length in Modern Scots is phonetic (so that in this form a long vowel is predictable merely from its occurrence /- fricative [+ voice], [ð]) is immaterial here. Evidence for the occurrence of the Great Vowel Shift and hence also for the existence of a long vowel in this form at some time before the Early Modern English period is provided by the change in vowel quality attested in the Modern Scots form. The workings of the 'Scottish Vowel Length Rule' are described in Aitken (1981). It is also discussed by Ewen (1977) and Lass (1974).

2. *Scipu* has a single medical consonant [p] following a short stressed vowel [i] in the stem syllable. There are, therefore, motivations for suggesting that [p] is both syllable-final and syllable-initial, i.e., ambisyllabic, in this form. As stated by Colman (1986: 228) "Old English does not accept word-final short stressed vowels" and since the word structures of a language are mirrored in and by its "possible syllable structures", "any syllable with a short stressed vowel must be closed" by a consonant. [p] in *scipu* constitutes an acceptable word-final, and hence also syllable-final segment (cf. Nominative Singular *scip*) and it "must function at least partially as syllable-final" here in order "to form an acceptable short stressed syllable in the stem". [p] is also a "well-formed word-initial", hence also syllable-initial segment and functions in *scipu* also as syllable-initial; thus, [p] may be assigned ambisyllabicity: [ʃi[p]u]. This double function has been represented in the tree for *scipu* by joining the Co. node of the first syllable with the O. node of the second, both of these dominating the category C, which in turn dominates the specific segment [p]. See further Colman (1986) and (1983a); Fallows (1981); Anderson and Jones (1974b) and (1977: 101).

3. Stated, for instance, by Campbell (1959: §§32, 35); Hockett (1959); Kuhn (1961: 524).

4. For accurate details and discussion of the manuscript and its dating, see Bruckner and Marichal (1963–1967: Numbers 220 and 198), also Brown (1982: 107). The information given in these two sources is preferable to that available in Campbell (1959: §57.6, fn. 1) and Hogg (MS.: §2.59) – Campbell confuses the details and date of the present manuscript with a later copy made in 715 (the date suggested by Bruckner in preference to 700); Hogg cites the Charter number incorrectly – following Sweet (1885) for both manuscripts, this one ought to be number 5. Hogg's citation seems to be based on the later copy of BM. Stowe Ch. I (i.e., MS. Cotton Augustus II, 88), but this is unnecessary since ⟨ð⟩ occurs in the original charter. His manuscript reference is also incomplete.

5. Though this practice cannot be relied upon because Campbell is inconsistent in his use of the notational devices outlined in his *Note on Symbols* - see, for instance, the discussion of *hēah* at §2.1.3. Even his use of the asterisk for reconstructed forms is not constant, witness unstarred forms like "***kæ, ȝæ***" in his §253 where he is commenting on pre-literary phonological developments like 'First Fronting' to [æ] and 'Retraction of [æ] to [ɑ]'. The diacritical dot is not always superscribed on *c* when, according to Campbell's outline of the contexts in which "palatal *ċ*" would occur, it ought to be used, e.g., "***milc***" (§628.5 and cf.§§429, 331.3) or "***cælċ***" (§496, cf. §427).

6. The symbol ⟨k⟩ is occasionally used, alongside ⟨c⟩, in Old English manuscripts to represent the velar stop [k], especially before the graph ⟨y⟩ as in the word *kyning* 'king'. In the 10th century glosses to the *Gospel of St. Matthew* in MS. Bodleian, Auct.D.2.19(3946) (also known as the *Rushworth Gospels I*, however, "*k* predominates over *c* when a front vowel follows .... which may represent an attempt at disambiguating the symbols, although *k* is often used when *c* would be equally unambiguous, eg, *knēorisse* 'generation', *Krist* 'Christ'." (Hogg MS.: §2.50 and fn. 1). Because the sumbol ⟨k⟩ is used only sporadically in Old English, with the exception of this one manuscript (Campbell 1959: §173, fn. 1) where it does not seem to have a consistent function, ⟨c⟩ has been cited here because it is the symbol most often used in Old English manuscripts. See also Campbell (1959: §§53, 55, 57.3, 63) and Hogg (MS.: §§2.51, 2.60).

7. Phonemic brackets have been specifically used here for /k/ (cf. §2.3 ff.) and for /ɣ/ - see Hogg (1979: 93-96), who presents arguments for and against the choice of the fricative [ɣ], rather than the stop [g] as the Old English phoneme of which [ɣ] and [g] are members. Though the choice of /ɣ/ is by no means problem-free, the historical, comparative and synchronic evidence mustered by Hogg in support of such an analysis make a phoneme /ɣ/ with an allophone [g] the most attractive option.

8. The articulation of the segments represented respectively by ⟨cc⟩ and ⟨cȝ⟩ may not have involved actually pronouncing each segment twice (though it could be argued that this was the case - the first segment of the sequence closing one syllable and the second, the second syllable - cf. Crystal 1985: 133). There are two possible alternative articulations: either [t͡ʃ:] and [d͡ʒ:], or [t:ʃ] and [d:ʒ]. The latter is perhaps given more credibility than the first by, for instance, the description given by Pope (1934: §113) of present-day articulation of geminate or 'double' consonants in those languages where they exist. She first of all describes how consonants are articulated, *viz.* "1. The putting of the

articulatory organs into position.... . 2. The keeping of the organs in position .... .
3. The release of the articulatory organs from the position of the given sound .... .". She then goes on to say that "the distinguishing feature of .... double consonants is .... that they retain the complete triple movement [of articulation] together with a slight lengthening modification of the middle movement [i.e., 2]".

9. The secondary front vowel [ø] is thought to have unrounded to, and merged with, /e/:<e> by or during the 9th century, and [ø:] to /e:/:,e> (except in Anglian) by the 10th century, cf. Campbell 1959: §§196, 198. So, for instance, <cēne> 'keen', with /#-/k/, appears in various 10th century manuscripts, such as the Lauderdale manuscript of *King Alfred's Translation of Orosius*. If a Dative Singular form of *cēn* 'pine-torch', where <e>:/e:/ ← Gmc /e:/, and with /#-/t͡ʃ/, *viz.*, *cēne*, were recorded in Old English, these two items would provide an exact minimal pair evidencing a /k/ ≠ /t͡ʃ/ contrast /#-/e/, but only the Nominative Singular form is found in manuscripts (cf. Page (1973: 77); Bosworth-Toller (1898: entry for *cēn*).

A /k/ ≠ /t͡ʃ/ contrast /#-/i/ is found, however. *Cinn* 'race/kind' with unrounded /i/:<i> ← the secondary front vowel [y] ← Gmc [u] (cf. Go *kunjis*, Genitive Singular), OS/OHG *kunni*) is exemplified in the phrases <flēogende cinn>, <crēopende cinn>, etc. which appear in Alfric's Old English translation of the book of *Genesis* (MS. Cotton Claudius B.iv. of the middle of the first half of the 11th century - see Ker 1957: 178-179 - though the translation itself dates from between c. 987 and 1005, according to, e.g., Stenton 1971: 458-459).

10. A word with an *i*-umlauted stem vowel and word-medial or word-final Pre OE [k] (or [kk]) would necessarily develop a palatalised [k'] (or [k'k'] reflex since the [i] or [j] segment which caused the vowel mutation would have immediately followed this [k], or [kk], if after gemination, and palatalised it thus, e.g., OE *sēcan* [se:kj'ɑn] ← PreOE [sø:kjan] ← PrOE/Gmc [so:kjɑn], cf. Go *sōkjan*.

11. Any Infinitive of a Weak Class II verb would contain velar [k] /-$[iɑn] because this suffix ← Gmc [o:jɑn] (Campbell 1959: §§756, 429): the syllable-initial back vowel [o:] prevented the preceding syllable-final [k] from becoming palatalised or lenited.

12. It is unnecessary with regard to forms like these to suggest as Campbell does (1959: §435), in trying to explain the non-occurrence of assibilated consonants in either the Old English or Present-day English reflexes, that [k'] "reverted to *k*" (presumably Campbell here means [k]). Obviously lenition did not affect forms such as these only because the requisite assibilating context was not present. Moreover, if, as Campbell

states (§§426, 428), the preceding stressed front vowel was responsible for palatalising [k] originally, it is highly unlikely that palatal quality in the consonant should disappear so long as the palatalising vowel segment remained.

Alternatively, the spellings of, for instance *bæc* as <bæcg> in the *Lindisfarne Gospels*, on which Campbell, in the absence of direct evidence of Old English pronunciation, partly bases his assumption of [k'] in words like *bæc, frēcne,* etc., could be an orthographic representation of some allophonic realisation, other than [k'], of /k/ in the context of a preceding front vowel and either a following front vowel, a following Liquid or Nasal, or following word-boundary. One such appropriate realisation would be, e.g., a glottally-reinforced [k], i.e., [k$^{\text{ʔ}}$]. Such an allophone of /k/ occurs in the contexts given above in Present-day English (cf. Gimson 1980: 159, 169-70). This allophone might sound to scribes acoustically-similar enough to [k'] to explain the *Lindisfarne Gospels'* use of a digraph associated with the palatalising and assibilating changes. Such a similarity would also perhaps explain the appearance of spellings in Middle English which suggest palatalised or assibilated reflexes of OE /k/, like <bacch> beside <bac> (*Ormulum,* late 12th century), cf. <wecche> 'wakefulness/watch' ← OE *wæcce.*

13. The more usual spelling, at least in West Saxon texts, for [gg], is <gg>, so <frogga> 'frog', cf. Campbell (1959: §§51, 64); Lass and Anderson (1975: 145).

14. Degemination of [g'g'] (→ [g'] would → [d_3]) in /-# seems likely on the basis of the parallel degemination of other geminate consonants (or shortening of lengthened consonants, alternatively - cf. Note 8 above). Degemination generally is suggested by early textual orthographic variation between double and single consonant graphs. See Hogg (MS.: §2.78 (1)); Kurath (1956: 435), but cf. Campbell (1959: §66).

15. Fisiak (1968: §2.57), Wright and Wright (1928: §236), Brunner (1963: §36), Hogg (MS.: §2.58, n. 2) and Jordan (1974: §§159, 215 and n. 2) describe the voicing, before the 11th century, even before the borrowing of French loanwords, of [f] to [v] word-initially, in dialects of the South and South-West Midlands, as evidenced in forms with initial <u>, rather than <f>, e.g., <ueder>/<uader> 'father', <uive> 'five', <ulesch> 'flesh'. Bennett (1955: 367) cites <uif> 'five', found in the Guild Statute of Bedwyn, Wiltshire, of c. 950.

This voicing is thought (by Jordan) to have occurred only when the preceding word ended in a voiced phone, thus *uend* in the phrase *þe uend,* shows initial <u>:[v] because the definite article, ending in a vowel occurs before it, while *fodder* retains <f>:[f] since a voiceless alveolar fricative [s] precedes it, in the phrase *kues fodder.* The move towards phonemicisation of [v] word-initially could therefore be seen as

a native tendency (at least in certain areas of the country) which was reinforced, or accelerated, by the later borrowing of French loans (as exemplified in the main text) with non-context-dependent word-initial /v/.

16. This information, though useful and valid for the purpose of illustrating these particular means by which we may attempt to recover Old English phonology, is inevitably limited by the choice made to focus on and discuss only three forms from one noun paradigm. It therefore gives a much simplified picture of the phonological issues relating to the use and functions of the graphs ⟨æ⟩ and ⟨a⟩ in Old English texts. The data provided would suggest, for instance, that the phones [æ] and [ɑ] had allophonic status whereas there is no general agreement among writers on Old English on this point: Campbell, Hockett and Kuhn (cf. Note 3 above) interpret these low vowels as phonemes. Strang and Prins (cited in the main text) on the other hand, argue for allophonic status. Omitted also is any consideration of phonological environments for the occurrence of the phones represented by ⟨æ⟩ and ⟨a⟩ other than the three given in the text. Consideration of forms like ⟨ælcras⟩ ~ ⟨alcras⟩ 'fields' (which have both ⟨æ⟩ and ⟨a⟩ /-C_1\$$C_2$V[+ back]; ⟨fægnian⟩ ~ ⟨fagnian⟩ 'to rejoice' (with ⟨æ⟩ as well as ⟨a⟩ /-C_1\$$C_2$V[+ front], etc., would have complicated the discussion with no obvious profit at this stage. For an evaluation of such evidence and other available data, together with a lucid assessment of the whole question of the phonological status of *æ* and *a* in Old English, see Colman (1983b) and discussion in main text at §3.4.1.

17. /j/ was more normally spelt ⟨ȝ⟩ in Old English, cf., e.g., Campbell (1959: §50).

18. On *wynn* and its geographical and chronological distribution and use, cf. again §2.2.2; on the use of ⟨uu⟩, see Kuhn (1970: §9.11). For examples, see, for instance, Bosworth and Toller (1898) and the *Supplement* and *Addenda* to their *Anglo-Saxon Dictionary* by Toller (1921) and Campbell (1972) or, since they do not normalise *wynn* and ⟨u(u)⟩ to *w*, see Venezky and Healey (1980).

19. Cf. also on this question generally, e.g., Angus McIntosh's (1956) paper 'The analysis of written Middle English', in *Transactions of the Philological Society*: 26-55; McLaughlin (1963) and Gero Bauer's (1986) paper.

20. See Chapters 5 and 6 below for a more detailed consideration of this question.

21. Early Old Irish, rather than Hiberno-Latin, is the chosen point of comparison because, as Harvey (1987b: 8) says, "Irish Latin .... would be likely to have been assimilated to the

native Hibernian phonemics in pronunciation". Further, although "it is true that Hiberno-Latin is essentially medieval Latin .... it is influenced by a handful of features of the Old Irish language ...." (Herren 1981: 3). Since those features of Latin spelling and/or phonology which are thought to be characteristically Hibernian (see, e.g., the Introduction to Löfstedt 1965 for a summary of some of these) originated in the phonology and spelling of Early Old Irish, it seems simpler, and less indirect, then, to refer immediately to the Early Old Irish itself.

22. Throughout these Sections on 'Latin' consonants only single consonants are treated for reasons primarily of their relative importance in the diachronic development of the two Early Romance languages (or dialects) treated here by comparison with that of geminate consonants and also for reasons of economy of space. A brief summary of the situation with regard to geminate (or lengthened - cf. Note 8 above) consonants in Classical Latin and its successive stages will therefore be given here. All of the single consonants in Classical Latin (cf. Figure (12)) could occur lengthened, or as geminates, save /h/ and [ŋ] and the aspirated voiceless stops. [ww] (or [w:]) and [zz] (or [z:]) occurred only in Greek loanwords; [ss] (or [s:]) occurred only after a short vowel and [jj] occurred only /V-V (the others, presumably, could occur word-finally) - cf. Allen (1965: 11 and *passim*). Generally gemination was represented in spelling by the use of two identical consonant graphs, e.g., ***annus*** 'year' or *corōlla* 'a little crown'. (In the following two paragraphs [ ] are used with broad phonetic, not narrow phonetic, meaning).

In Gallo-Romance, the number of geminates/lengthened consonants surviving from the Classical Latin period was added to by the formation of a few more such consonants developed in the Imperial Latin period by assimilation (e.g., "**dossus*" ← CL *dorsus* 'back', cited by Pope 1934: §359; see also her §371 for the production also by assimilation of geminate [mm]/lengthened [m:]). Geminates from both sources were apparently largely retained until after the 8th century (cf. Pope 1934: §366) - still mostly represented in spelling by two identical consonant graphs. After this date they were simplified/shortened to single ones.

In Italo-Romance, not only were the geminates inherited from Classical Latin retained, but their numbers were greatly increased from the Imperial Latin period on by four means in particular (cf. Vincent 1988: 286-287; Pei 1941: §§74, 85, 90, 91 and 94; Grandgent 1927: §§109, 121-123 and 131): (1) assimilation - predominantly regressive - e.g., CL *frig(i)do* → IR ***freddo*** 'chilliness/cold' ([g(i)d] → [dd]) or CL *saxum* → ER *sasso* 'large stone/rock' ([ks] → [ss]); gemination/lengthening of consonants intervocalically when followed by a liquid or an

approximant, i.e., [r,l] or [j,w], e.g., CL *faciam* 'shape/form/face (Acc Sg)' → ER *faccia* 'face' ([kj] → [tʃtʃ] - or [t͡ʃ:], or even [t:ʃ], cf. Note 8 above); gemination, again intervocalically, of consonant + [l] which developed to consonant + [i] in Italo-Romance, e.g., CL *duplus* → ER *doppio* 'double' ([pl] → [pi] → [pp]); and, finally, compensatory lengthening of a consonant which took place after an original short(ened) vowel in proparoxytonic words, e.g., CL *atomum* 'atom (Acc Sg)' → ER *attimo* 'moment'. For geminates/lengthened consonants in early Old Irish, see §5.3.3.1 of the main text.

BIBLIOGRAPHY

Agard, Frederick B.
1984 *A course in Romance linguistics; Volume 2: A diachronic view.* (Washington: Georgetown University Press).

Agutter, Alexandra J. L.
1988 'Standardisation in Middle Scots', *Scottish Language*, Winter, No. 7: 1-8.

1990 'Restandardisation in Middle Scots', in: Sylvia Adamson, Vivien Law, Nigel Vincent and Susan Wright (eds) *Papers from the 5th International Conference on English Historical Linguistics.* (Amsterdam: John Benjamins Publishing Co.): 1-11.

Ahlqvist, Anders
1974 'Notes on case and word-boundaries', *Ériu* 25: 181-189.

1985 'The study of language in early Ireland', *Neuphilologische Mitteilungen* 86: 246-257.

Aitchison, Jean
1981 *Language change: progress or decay?* (London: Fontana).

1983 *The articulate mammal*[2]. (London: Hutchison & Co. (Publishers) Ltd.).

Aitken, A.J.
1981 'The Scottish vowel length rule', in M. Benskin and M.L. Samuels (eds) *So meny people, longages and tonges.* (Edinburgh: Benskin and Samuels): 131-157.

Allen, W. Sidney
1965 *Vox Latina: a guide to the pronunciation of Classical Latin.* (Cambridge: Cambridge University Press).

1974 *Vox Graeca: a guide to the pronunciation of Classical Greek*[2]. (Cambridge: Cambridge University Press).

Allison, Thomas
1932 *Pioneers of English learning.* (Oxford: Basil Blackwell).

Amos, Ashley C.
1980 *Linguistic means of determining the dates of Old English literary texts.* (Massachusetts: The Medieval Academy of America).

Anderson, A.O. and M.O. Anderson
1961 *Adomnán's Life of Columba.* (Edinburgh: Nelson).

Anderson, John M.
1988(a) 'The status of voiced fricatives in Old English', in: John M. Anderson and Norman Macleod (eds) *Edinburgh studies in the English language.* (Edinburgh: John Donald Publishers Ltd.): 90-112.

1988(b) 'The great kEntish collapse', in: Dieter Kastovsky and Gero Bauer (eds) *Luick revisited: papers read at the Luick Symposium at Schloß Liechtenstein, 15-18.9.1985.* (Tübingen: Gunter Narr Verlag): 97-107.

Anderson, John M. and Colin J. Ewen
1987 *Principles of dependency phonology.* (Cambridge: Cambridge University Press).

Anderson, John M. and Charles Jones
1974 'Three theses concerning phonological representation', *Journal of Linguistics* 10: 1-26.

1977 *Phonological structure and the history of English.* (Amsterdam: North-Holland).

Anderson, O.S. (ed)
1941 *Old English material in the Leningrad manuscript of Bede's Ecclesiastical History.* (Lund: C.W.K. Gleerup).

Árnason, Kristján
1980 *Quantity in historical phonology; Icelandic and related cases.* (Cambridge: Cambridge University Press).

Auerbach, Erich
1961 *Introduction to Romance languages and literature.* (Translated by Guy Daniels). (New York: Capricorn Books).

Barley, M.W. and R.P.C. Hanson (eds)
1968 *St. Patrick and the British Church - Christianity in Britain, 300-700.* (Leicester: Leicester University Press).

Bauer, Gero
1986 'Medieval English scribal practice: some questions and some assumptions', in: Dieter Kastovsky and Aleksander Szwedek (eds) *Linguistics across historical and geographical boundaries*, I. (Amsterdam: Mouton de Gruyter): 199-210.

Bauer, Laurie
1983 *English word-formation.* (Cambridge: Cambridge University Press).

Bazell, C.E.
1960 *Review* of A. Campbell *Old English Grammar.*, *Medium Ævum* 29: 27-30.

Beaulieux, C.
1927 'Essai sur l'histoire de la prononciation du Latin en France', *Revue des Études Latines* V: 68-82.

Bec, Pierre
1971 *Manuel pratique de philologie Romaine*, Tome II. (Paris: Éditions A. & J. Picard).

Bennett, William H.
1955 'The southern English development of Germanic initial [f, s, þ]', *Language* 31: 367-371.

Berkhout, C.T. and M. McC. Gatch
1982 *Anglo-Saxon scholarship: the first three centuries.* (Boston, Mass.: G.K. Hall).

Bieler, Ludwig
1947 'Utility and tradition: two aspects of "simplified spelling"', *Studies: an Irish Quarterly Review* 36: 203-210.

1949 'Insular palaeography: present state and problems', *Scriptorium* 3: 267-294.

1952 'The island of scholars', *Revue du Moyen Age Latin* 8: 213-234.

1966 *Ireland, harbinger of the Middle Ages.* (London: Oxford University Press).

1976 'Ireland's contribution to the culture of Northumbria' in: Gerald Bonner (ed) *Famulus Christi; essays in commemoration of the thirteenth centenary of the birth of the Venerable Bede.* (London: SPCK): 211-228.

Birch, Walter de Gray
1885-1893 *Cartularium Saxonicum: a collection of charters relating to Anglo-Saxon history,* 3 Volumes. (London: Whiting and Co.).

1899 *Index Saxonicus: An index to all the names of persons in Cartularium Saxonicum.* (London: Phillimore and Co.).

Blair, Peter Hunter
1976 *Northumbria in the days of Bede.* (London: Victor Gollancz Ltd.).

1977 *An introduction to Anglo-Saxon England*[2]. (Cambridge: Cambridge University Press).

Bliss, Arthur J.
1958 *The metre of Beowulf.* (Oxford: Basil Blackwell).

Blomfield, J.E. (Mrs G. Turville-Petre)
1935 *The origins of Old English orthography with special reference to the representation of spirants and w.* (Unpublished B.Litt thesis: University of Oxford.)

Bolton, Whitney F.
1967 *A history of Anglo-Latin literature 597-1066, I, 597-740.* (Princeton).

Bosworth, Joseph and T. Northcote Toller
1898 *An Anglo-Saxon dictionary.* (Oxford: Oxford University Press). *Supplement* by Toller, 1921. *Addenda and corrigenda* by Alistair Campbell, 1972.

Bourcier, E.
1967 *Eléments de linguistique romane*[5]. (Paris: Klincksieck).

Bourcier, Georges
1981 *An introduction to the history of the English language.* [English adaptation by Cecily Clark]. (Cheltenham: Stanley Thornes (Publishers) Ltd.).

Boyd-Bowman, Peter
1980 *From Latin to Romance in sound charts.* (Washington: Georgetown University Press).

Brooks, Nicholas
1984 *The early history of the church of Canterbury; Christ Church from 597 to 1066.* (Leicester: Leicester University Press).

Brown, T. Julian
1975 'An historical introduction to the use of Classical Latin authors in the British Isles', *Settimane di Studio del Centro Italiano di Studi sull'Alto Mediovo* xxii: 237-299.

1982 'The Irish element in the Insular system of scripts to circa A.D.850' in Heinz Löwe (ed) *Die Iren und Europa im Früheren Mittelalter*, Vol I. (Stuttgart: Klett-Cotta): 101-119.

n.d. 'The oldest Irish manuscripts and their late antique background', *Irland und Europa* V.

Bruckner, Albert and Robert Marichal
1963-1967 *Chartae Latinae Antiquiores.* Parts 3-4. (Olten and Lausanne)

Brunner, Karl
1963 *An outline of Middle English grammar.* (Translated by Grahame Johnston). (Oxford: Basil Blackwell).

1965 *Altenglische Grammatik, nach der Angelsächsischen Grammatik von Eduard Sievers*[3]. (Tübingen: Niemeyer).

Bullough, Donald A.
1964 'Columba, Adomnan and the achievement of Iona: Part I', *The Scottish Historical Review* 43: 111-130.

1965 'Columba, Adomnan and the achievement of Iona: Part II, *The Scottish Historical Review* 44: 17-33.

Bynon, Theodora
1977 *Historical Linguistics.* (Cambridge: Cambridge University Press).

Calder, George (ed)
1917 *Auraicept na n-éces: the scholars' primer.* (Edinburgh: John Grant).

Campbell, Alistair
1959 *Old English grammar.* (Oxford: Clarendon Press).

Campbell, Alistair (ed)
1973 *Charters of Rochester; Anglo-Saxon charters - I.* (London: Oxford University Press for the British Academy).

Campbell, James
1986 *Essays in Anglo-Saxon history.* (London: The Hambledon Press).

Celtic, Department of, University of Edinburgh
1986 'Notes on early Irish illustrating lectures'. (Unpublished booklet.).

Chadwick, Henry M.
1894-1899 'Studies in Old English', *Transactions of the Cambridge Philological Society* 4: 85-265.

Chambers English Dictionary
1988 (Edinburgh and Cambridge: Chambers and Cambridge University Press).

Chatman, Seymour
1958 'The *ɑ/æ* opposition in Old English', *Word* 14: 224-236.

Clemoes, Peter
1952 *Liturgical influence on punctuation in late Old English and early Middle English manuscripts.* (Cambridge: Occasional papers: Number 1, Department of Anglo-Saxon).

Coetsem, Frans van and Herbert L. Kufner
1972 *Toward a grammar of Proto-Germanic.* (Tübingen: Max Niemeyer Verlag).

Colman, Fran
1983(a) 'Vocalisation as nucleation', *Studia Linguistica* 37/1: 30-48.

1983(b) 'Old English /ɑ/ ≠ /æ/ or [ɑ] ~ [æ]?', *Folia Linguistica Historica* IV/2: 265-285.

1985(a) 'Old English *ie*: quid est?', *Lingua* 67: 1-23.

1985(b) 'On some morphological formatives in Old English', *Folia Linguistica Historica* VI/2: 267-283.

1986 'A *cæġ* to Old English syllable structure', in: Dieter Kastovsky and Aleksander Szwedek (eds) *Linguistics across historical and geographical boundaries,* I. (Amsterdam: Mouton de Gruyter): 225-230.

1988(a) 'Luick and templates: some (other) Old English digraphs', in: Dieter Kastovsky and Gero Bauer (eds) *Luick revisited: papers read at the Luick Symposium at Schloß Liechtenstein, 15-18.9.1985.* (Tübingen: Gunter Narr Verlag): 139-158.

1988(b) 'What *is* in a name?', in: Jacek Fisiak (ed) *Historical dialectology: regional and social.* (Berlin: Mouton de Gruyter): 111-137.

1990 'Numismatics, names and neutralisations', *Transactions of the Philological Society* 88/1: 59-96.

in press *Money talks: reconstructing Old English.* (Berlin: Mouton de Gruyter).

Colman, Fran and John Anderson
1983 'Front Umlaut: a celebration of Second Fronting, *i*-Umlaut, life, food and sex', in: Michael Davenport, Erik Hansen and Hans Frede Nilsen (eds) *Current topics in English historical linguistics:* Odense University Studies in English 4. (Odense: Odense University Press): 165-190.

Copley, Gordon
1988 *Early place-names of the Anglian regions of England.* (B.A.R. British Series 185).

Crépin, André
1976 'Bede and the vernacular', in: Gerald Bonner (ed) *Famulus Christi; essays in commemoration of the thirteenth centenary of the birth of the Venerable Bede.* (London: SPCK): 170-192.

Crystal, David
1985 *A dictionary of linguistics and phonetics*[2]. (Oxford: Basil Blackwell Ltd.).

Daunt, Marjorie
1939 'Old English sound changes reconsidered in relation to scribal tradition and practice', *Transactions of the Philological Society*: 108-137.

Davidsen-Nielsen, Niels
1984 'Old English short vowels before nasals', in: N.F. Blake and C. Jones (eds) *English historical linguistics: studies in development.* (Sheffield: CECTAL Conference Papers Series No. 3): 12-23.

Deanesly, Margaret
1961 *The pre-Conquest church in England.* (London: A. & C. Black).

Derwing, Bruce L. and Maureen L. Dow
1987 'Orthography as a variable in psycholinguistic experiments', in: Philip A. Luelsdorff (ed) *Orthography and phonology; papers presented at a workshop held at the Fifth International Phonology Meeting, held in Eisenstadt, Austria, June 25-28, 1984.* (Amsterdam: John Benjamins Publishing Co.): 171-185.

Derwing, Bruce L., Terrance M. Nearey and Maureen L. Dow
1986 'On the phoneme as the unit of the "second articulation"', *Phonology Yearbook* 3: 45-69.

De Paor, Liam
1984 'The Christian connection', in: Lesley M. Smith (ed) *The making of Britain; the Dark Ages.* (Basingstoke and London: Macmillan Publishers Ltd.): 77-90.

Devitt, Amy
1990 *Standardizing written English.* (Cambridge: Cambridge University Press).

Dobson, Eric J.
1962 'Middle English lengthening in open syllables', *Transactions of the Philological Society*: 124-148.

Dunleavy, Gareth W.
1960 *Colum's other island: the Irish at Lindisfarne.* (Madison: The University of Wisconsin Press).

Ekwall, Eilert
1940 *The concise Oxford dictionary of English place-names*[2]. (Oxford: Clarendon Press).

1975 *A history of Modern English sounds and morphology.* (Translated and edited by A. Ward). (Oxford: Basil Blackwell).

Elcock, William D.
1975 *The Romance languages*[2]. (Revised with a new introduction by John N. Green). (London: Faber & Faber Ltd.).

Evans, Claude
n.d. 'The Celtic church in Anglo-Saxon times', in: J. Douglas Woods and David A.E. Pelteret (eds) *The Anglo-Saxons; synthesis and achievement.* (Toronto: Wilfrid Laurier University Press): 77-92 and 160-164.

Ewart, Alfred
1943 *The French language.* (London: Faber & Faber Ltd.).

Ewen, Colin J.
1977 'Aitken's Law and the phonatory gesture in dependency phonology', *Lingua* 41: 307-329.

Fallows, Deborah
1981 'Experimental evidence for English syllabification and syllable structure', *Journal of Linguistics* 17: 309-318.

Fisiak, Jacek
1968 *A short grammar of Middle English (Part One: graphemics, phonemics and morphemics).* (Warszawa: Państwowe Wydawnictwo Naukowe).

Francis, W. Nelson
1983 *Dialectology: an introduction.* (Harlow: Longman Group Ltd.).

Garman, Michael
1990 *Psycholinguistics.* (Cambridge: Cambridge University Press).

Gelling, Margaret
1979 *The early charters of the Thames Valley.* (Leicester: Leicester University Press).

Gimson, Alfred C.
1980 *An introduction to the pronunciation of English*[3]. (London: Edward Arnold (Publishers) Ltd.).

Gneuss, Helmut
1972 'The origin of Standard Old English and Æthelwold's school at Winchester', *Anglo-Saxon England* I: 63-83.

1981 'A preliminary list of manuscripts written or owned in England up to 1100', *Anglo-Saxon England* 9: 1-60.

Gordon, Arthur E.
1973 *The letter names of the Latin alphabet.* (Berkeley and Los Angeles: University of California Press).

Grandgent, Charles H.
1908 *An introduction to Vulgar Latin.* (Boston: D.C. Heath & Co.).

Gratwick, Adrian S.
1982 'Latinitas Britannica: was British Latin archaic?', in: Nicholas Brooks (ed) *Latin and the vernacular languages in early Medieval Britain.* (Leicester: Leicester University Press): 1-79.

Greene, David
1962 'The colouring of consonants in Old Irish', in: A. Sovijärvi and P. Aalto (eds) *Proceedings of the Fourth International Congress of Phonetic Sciences.* (The Hague: Mouton de Gruyter): 622-624.

1973 'The growth of palatalization in Irish', *Transactions of the Philological Society*: 127-136.

1976 'The diphthongs of Old Irish', *Ériu* XXVII: 26-45.

1977 'Archaic Irish', in: Karl H. Schmidt (ed) *Indogermanisch und Keltisch; Kolloquium der Indogermanischen Gesellschaft am 16. und 17. Februar 1976 in Bonn.* (Wiesbaden: Dr. Ludwig Reichert Verlag): 11-33.

Haadsma, R.A. and J. Nuchelmans
1963 *Précis de Latin Vulgaire.* (Groningen: J.B. Wolters).

Hall, John R. Clark
1894 *A concise Anglo-Saxon dictionary.* (London: Swan Sonnenschein & Co.).

Harris, Martin
1988(a) 'The Romance languages', in: Martin Harris and Nigel Vincent (eds) *The Romance languages.* (London: Croom Helm): 1-25.

1988(b) 'French', in: Martin Harris and Nigel Vincent (eds) *The Romance languages.* (London: Croom Helm): 209-245.

Harvey, Anthony J.R.

1984 'Aspects of lenition and spirantization', Cambridge Medieval Celtic Studies 8 (Winter): 87-100. [Not seen].

1985 *Studies in early insular Celtic consonantal spelling and phonology with particular reference to Irish material.* (Unpublished Ph.D. dissertation: University of Cambridge).

1987(a) 'The ogam inscriptions and their geminate consonant symbols', *Ériu* XXXVIII: 45-71.

1987(b) 'Early literacy in Ireland: the evidence from ogam', *Cambridge Medieval Celtic Studies* 14 (Winter): 1-15.

1989 'Some significant points of early insular Celtic orthography', in: Donnchadh Ó Corráin, Liam Breatnach and Kim McCone (eds) *Sages, saints and storytellers: Celtic studies in honour of Professor James Carney.* (Maynooth: An Sagart): 56-66.

1990(a) 'Retrieving the pronunciation of early Insular Celtic scribes: towards a methodology', *Celtica* 21: 178-190.

1990(b) 'The ogam inscriptions and the Roman alphabet: two traditions or one?', *Archaeology Ireland* 4: 13-14.

Herren, Michael W.

1981 'Hiberno-Latin philology: the state of the question', in: Michael W. Herren (ed) *Insular Latin studies: Papers on Latin texts and manuscripts of the British Isles: 550-1066.* (Toronto: Toronto Pontifical Institute of Mediaeval Studies): 1-22.

Hessels, John H.

1906 *A late eighth-century Latin-Anglo-Saxon glossary preserved in the library of the Leiden University.* (Cambridge: Cambridge University Press).

Hill, David
1984 *An atlas of Anglo-Saxon England.* (Oxford: Basil Blackwell).

Hill, Rosalind
1976 'Bede and the boors', in: Gerald Bonner (ed) *Famulus Christi; essays in commemoration of the thirteenth centenary of the birth of the Venerable Bede.* (London: SPCK): 93-105.

Hockett, Charles F.
1959 'The stressed syllabics of Old English', *Language* 35: 575-597. Reprinted in: Roger Lass (ed) (1969) *Approaches to English historical linguistics.* (New York: Holt, Rinehart & Winston): 108-132

Hogg, Richard M.
1979 'Old English palatalization', *Transactions of the Philological Society*: 89-113.

1982(a) 'Two geminate consonants in Old English?', in: John M. Anderson (ed) *Language form and linguistic variation: Papers dedicated to Angus McIntosh (Amsterdam studies in the theory and history of linguistic science; series IV - Current issues in linguistic theory, Volume 15).* (Amsterdam: John Benjamins B.V.): 187-202.

1982(b) 'Was there ever an /ɔ/-phoneme in Old English?', *Neuphilologische Mitteilungen* 83: 225-229.

1985 *Review* of T. Toon *The politics of early Old English sound change, Journal of Linguistics* 21: 245-250

1988 'On the impossibility of Old English dialectology', in: Dieter Kastovsky and Gero Bauer (eds) *Luick revisited: papers read at the Luick Symposium at Schloß Liechtenstein, 15-18.9.1985.* (Tübingen: Gunter Narr Verlag): 183-203.

MS. *Old English grammar notes.* (Unpublished MS.).

Hooke, Delia
1985 *The Anglo-Saxon landscape.* (Manchester: Manchester University Press).

Hughes, Kathleen
1958 'The distribution of Irish scriptoria and centres of learning from 730 to 1111', in: Nora K. Chadwick (ed) *Studies in the early British Church.* (Cambridge: Cambridge University Press): 243-272.

1972 *Early Christian Ireland: introduction to the sources.* (London: The Sources of History Ltd. in association with Hodder & Stoughton Ltd.).

Hyman, Larry M.
1975 *Phonology: theory and analysis.* (New York: Holt, Rinehart and Winston).

Jackson, Kenneth
1953 *Language and history in early Britain.* (Edinburgh: Edinburgh University Press).

1954 'The British language during the period of the English settlements', in: Nora K. Chadwick (ed) *Studies in early British history.* (Cambridge: Cambridge University Press): 61-82.

Jakobson, Roman
1941 *Kindersprache, Aphasie und allgemeine Lautgesetze.* (Uppsala: Almqvist & Wiksell).

Jeffers, Robert J. and Ilse Lehiste
1979 *Principles and methods for historical linguistics.* (Cambridge, Mass. and London: The MIT Press).

Jespersen, Otto
1909 *A Modern English grammar on historical principles I: sounds and spellings.* (London: Allen & Unwin; Copenhagen: Ejnar Munksgaard).

Johnson, Stephen
1980 *Later Roman Britain.* (London: Routledge and Kegan Paul).

Jones, Charles W.
1975 *Bede's De orthographia,* in: Charles W. Jones (ed) *Bedae Venerabilis opera* Pars [VII, *Opera didascalica* I. (Corpus Christianorum, Series Latina CXXIII A) (Turnholt): 1-57.

Jones, Daniel
1967 *The phoneme: its nature and use*[3] *(with an appendix on the history and meaning of the term "phoneme").* (Cambridge: Cambridge University Press).

1977 *Everyman's English pronouncing dictionary*[14]. (Revised by A.C. Gimson). (London: J.M. Dent & Sons Ltd.).

Jordan, Richard
1974 *Handbook of Middle English grammar: phonology.* (Translated and revised by Eugene J. Crook). (The Hague: Mouton & Co. N.V.).

Justeson, John S.
1976 'Universals of language and universals of writing', in: Alphonse Juilland (ed) *Linguistic studies offered to Joseph Greenberg on the occasion of his sixtieth birthday, Vol. I. (General linguistics).* (California: Anma Ribri & Co.): 57-94.

Keil, H. (ed)
1857-1880 *Grammatici Latini,* 7 Volumes. (Leipzig).

Keller, Wolfgang
1906 *Angelsächsische Palæographie.* (Palaestra xliii), 2 Volumes (Berlin: Mayer & Müller).

Kemble, J.M.
1839-1848 *Codex Diplomaticus Aevi Saxonici.* 6 Vols.

Kendall, C.B. and Margaret H. King (eds)
1975 *Bede's De arte metrica,* in: Charles W. Jones (ed) *Bedae Venerabilis opera* Pars [V]I, *Opera didascalica* I. (Corpus Christianorum, Series Latina CXXIII A) (Turnholt): 59-171.

Kenney, James F.
1929 *The sources for the early history of Ireland.* 2 Volumes. (New York: Columbia University Press).

Kent, Roland G.
1945 *The sounds of Latin: a descriptive and historical phonology*[3]. (Baltimore: Modern Linguistic Society of America).

Ker, Neil R.
1957 *Catalogue of manuscripts containing Anglo-Saxon.* (Oxford: Clarendon Press).

Keyser, S.J. and W. O'Neill

1983 'Exceptions to high vowel diphthongization in the Vespasian Psalter and their explanation', in: Michael Davenport, Erik Hansen and Hans Frede Nilsen (eds) *Current topics in English historical linguistics.* Odense University Studies in English 4. (Odense: Odense University Press): 137-164.

King, Anne

1986 'The Ruthwell Cross - a linguistic monument (Runes as evidence for Old English)', *Folia Linguistica Historica* VII/1: 43-79.

1988 'The long and the short of it: Old English spelling and Old English vowels', *Belgian Journal of Linguistics* 3: 157-178. [Bound in with this thesis].

in press 'You say [æjðər] and I say [æjhwæðər]? - interpreting Old English written data', in: Fran Colman (ed) *Evidence for Old English (Edinburgh Studies in the English Language 2).* (Edinburgh: John Donald). [Bound in with this thesis].

to appear 'Old English ABCs', in: *Proceedings of the 6th International Conference on English Historical Linguistics, Helsinki, May 1990.*

forthcoming 'Runes', in: *Encyclopedia of language and linguistics.* (Aberdeen University Press/Pergamon Press).

in progress 'Ogam', to appear in: *Encyclopedia of language and linguistics.* (Aberdeen University Press/Pergamon Press).

Kuhn, Sherman M.

1939 'The dialect of the Corpus Glossary', *Publications of the Modern Language Association* 54: 1-19.

1943 'The *Vespasian Psalter* and the Old English charter hands', *Speculum* 18: 458-483.

1961 'On the syllabic phonemes of Old English', *Language* 37: 522-538.

1970 'On the consonantal phonemes of Old English', in: J.L. Rosier (ed) *Philological essays in honour of Herbert Dean Merritt.* (The Hague: Mouton).

Kuhn, Sherman M. and Randolph Quirk
1953 'Some recent interpretations of Old English digraph spellings', *Language* 29: 372-389.

1955 'The Old English short digraphs: a reply', *Language* 31: 390-401.

Kurath, Hans
1956 'The loss of long consonants and the rise of voiced fricatives in Middle English', *Language* 32: 435-445.

Kyes, Robert L.
1967 'The evidence for *i*-umlaut in Old Low Franconian', *Language* 43: 666-673.

Labov, William
1972 'On the use of the present to explain the past', in: *Preprints of the 11th International Congress of Linguists (Bologna, 28 August - 2 September 1972)*: 1110-1135. [Not seen].

Labov, William (ed)
1980 *Locating language in time and space.* (New York: Academic Press).

Labov, William, Malcah Yaeger and Richard Steiner
1972 *A quantitative study of sound changes in progress.* (Philadelphia: The U.S. Regional Survey).

Ladefoged, Peter
1982 *A course in phonetics*[2]. (New York: Harcourt Brace Jovanovich, Inc.).

Laistner, Max L.W.
1957 *Thought and letters in Western Europe A.D. 500-900.* (Revised edition). (London).

Lass, Roger
1974 'Linguistic orthogenesis? Scots vowel quantity and the English length conspiracy', in: John M. Anderson and Charles Jones (eds) *Historical linguistics. Proceedings of the First International Conference on Historical Linguistics, Edinburgh, 2-7 September 1973,* Volume II. (Amsterdam: North-Holland): 311-352.

1976 *English phonology and phonological theory: synchronic and diachronic studies.* (Cambridge: Cambridge University Press).

1977 'On the phonetic specification of Old English /r/', *Studia Anglica Posnaniensia* 9: 13-16. [Not seen].

1980 *On explaining language change.* (Cambridge: Cambridge University Press).

1983 'Quantity, resolution and syllable geometry', *Folia Linguistica Historica* IV/2: 151-180.

1984(a) *Phonology: an introduction to basic concepts.* (Cambridge: Cambridge University Press).

1984(b) 'Vowel system universals and typology: prologue to theory', *Phonology Yearbook* 1: 75-111.

1985 'Minkova *noch einmal*: MEOSL and the resolved foot', *Folia Linguistica Historica* VI/2: 245-265.

1986 'Words without etyma: Germanic "tooth"', in: Dieter Kastovsky and Aleksander Szwedek (eds) *Linguistics across historical and geographical boundaries*, I. (Amsterdam: Mouton de Gruyter): 473-482.

1987 *The shape of English: structure and history.* (London: J.M. Dent & Sons Ltd.).

1988(a) 'The *Akzentumsprung* of Old English *ēo*', in: Caroline Duncan-Rose and Theo Vennemann (eds) *On language, Rhetorica Phonologica Syntactica: a festschrift for Robert P. Stockwell from his friends and colleagues.* (London and New York: Routledge): 221-231.

1988(b) 'Vowel shifts, great and otherwise: remarks on Stockwell and Minkova', in: Dieter Kastovsky and Gero Bauer (eds) *Luick revisited: papers read at the Luick Symposium at Schloß Liechtenstein, 15-18.9.1985.* (Tübingen: Gunter Narr Verlag): 395-409.

1989 'How early does English get 'Modern'? Or, what happens if you listen to orthoepists and not to historians', *Diachronica* VI/1: 75-110.

forthcoming 'Old English fricative voicing unvisited', *Neuphilologische Mitteilungen.*

to appear 'What, if anything, was the Great Vowel Shift?', in: *Proceedings of the 6th International Conference on English Historical Linguistics, Helsinki, May 1990.*

Lass, Roger and John M. Anderson
1975 *Old English Phonology.* (Cambridge: Cambridge University Press).

Latham, E.
1965 *Revised medieval word-list from British and Irish sources.* (London: Oxford University Press).

Law, Vivien A.
1978 *The Ars Bonifacii: a critical edition with introduction and commentary on the sources.* (Unpublished Ph.D. dissertation: University of Cambridge).

1982 *The Insular Latin grammarians.* (Woodbridge: The Boydell Press).

1983 'The study of Latin grammar in eighth-century Southumbria', *Anglo-Saxon England* 12: 43-71.

1985 'Linguistics in the earlier Middle Ages: the Insular and Carolingian grammarians', *Transactions of the Philological Society*: 171-193.

Lehiste, Ilse
1988 *Lectures on language contact.* (Cambridge, Mass.: The MIT Press).

Lehmann, Winfred P.
1973 *Historical linguistics: an introduction*[2]. (New York: Holt, Rinehart and Winston, Inc.).

Lehmann, R.P.M. and Winfred P. Lehmann
1975 *An introduction to Old Irish.* (New York: Modern Language Association of America).

Leith, Dick
1983 *A social history of English.* (London: Routledge and Kegan Paul).

Lewis, Henry and Holgar Pederson
1961 *A concise comparative Celtic grammar.* (Göttingen: Vandenhoeck and Ruprecht).

Lindsay, W.M.
1894 *The Latin language: an historical account of Latin sounds, stems and flexions.* (Oxford: The Clarendon Press).

1910 *Early Irish miniscule script.* (Oxford: James Parker & Co.).

1915 *Notae Latinae: an account of abbreviation in Latin MSS. [sic.] of the early miniscule period (c.700-850).* (Cambridge: Cambridge University Press).

Linell, Per
1979 *Psychological reality in phonology; a theoretical study.* (Cambridge: Cambridge University Press).

Liversidge, Joan
1968 *Britain in the Roman empire.* (London: Routledge and Kegan Paul).

Lloyd, Paul M.
1979 'On the definition of "Vulgar Latin"', *Neuphilologische Mitteilungen* LXXX: 110-122.

Löfstedt, B. (ed)
1965 *Der Hibernolateinische Grammatiker Malsachanus.* (Uppsala).

Löfstedt, E.
1959 *Late Latin.* (Oslo: Aschehoug).

Lowe, Elias A.
1934-1971 *Codices Latini Antiquiores*, 1-11 and Supplement. (Oxford: Oxford University Press).

Luick, Karl
1921 *Historische Grammatik der englischen Sprache.* Part 1. (Leipzig: Tauchnitz; reprinted 1964 by Basil Blackwell, Oxford).

Lutz, Angelika
1984 'Spellings of the *Waldend* group - again', *Anglo-Saxon England* 13: 51-64.

McCone, Kim
1985 'The Würzburg and Milan glosses: our earliest sources of 'Middle Irish'', *Ériu* XXXVI: 85-106.

McCully, Chris B. and Richard M. Hogg
1990 'An account of Old English stress', *Journal of Linguistics* 26: 315-339.

McLaughlin, John C.
1963 *A graphemic-phonemic study of a Middle English manuscript.* (The Hague: Mouton & Co.).

McManus, Damian
1986 'Ogam, archaizing, orthography and the authenticity of the manuscript key to the alphabet', *Ériu* XXXVII: 1-31.

McManus, Dermott
1985 *Review* of: A.S. Gratwick (1982) 'Latinitas Britannica: was British Latin archaic?', in: Nicholas Brooks (ed) *Latin and the vernacular languages in early Medieval Britain.* (Leicester: Leicester University Press): 1-79; *Peritia* 4. [Not seen].

Marchand, J.W.
1973 *The sounds and phonemes of Wulfila's Gothic.* (The Hague: Mouton).

Markey, Thomas L.
1976 *Germanic dialect grouping and the position of Ingvæonic.* (Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft).

Marouzeau, J.
1951 *Lexique de la terminologie linguistique.* (Paris: Librairie Orientaliste Paul Geuthner).

Marsili, A. (ed)
1952 *Alcuini Orthographia.* (Pisa: no indication of publisher).

Matthews, P.H.
1974 *Morphology: an introduction to the theory of word-structure.* (Cambridge: Cambridge University Press).

Mayr-Harting, Henry
1972 *The coming of Christianity to Anglo-Saxon England.* (London: B.T. Batsford).

Mendeloff, Henry
1969 *A manual of comparative Romance linguistics; phonology and morphology.* (Washington: The Catholic University of America Press, Inc.).

Milroy, Lesley
1987(a) *Language and social networks*[2]. (Oxford: Basil Blackwell Ltd.).

1987(b) *Observing and analysing natural language: a critical account of sociolinguistic method.* (Oxford: Basil Blackwell Ltd.).

Minkova, Donka
1982 'The environment for open syllable lengthening in Middle English', *Folia Linguistica Historica* III/1: 29-58.

Mitchell, Bruce and Fred C. Robinson
1986 *A guide to Old English; revised with prose and verse texts and glossary.* (Oxford: Basil Blackwell).

Mossé, F.
1972 *A handbook of Old English.* (Trans. Akio Oizumi and Taé Okada). Doshisha Studies in English (Kyoto), No.3 and 4, and Monograph No.1, Doshisha University, Department of English.

Moulton, William G.
1972 'The Proto-Germanic non-syllabics (consonants)', in: Frans van Coetsem, and Herbert L. Kufner *Toward a grammar of Proto-Germanic.* (Tübingen: Max Niemeyer Verlag): 141-173.

Napier, Arthur S. (ed)
1900 'Old English glosses chiefly unpublished', *Anecdota Oxoniensia* Vol. 10-11 (Oxford: The Clarendon Press).

Nielsen, H.F.
1981 *Old English and the Continental Germanic languages.* (Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck).

Norberg, D.
1958 *Introduction à l'étude de la versification Latine médiévale.* (Stockholm).

1968 *Manuel pratique de Latin médiéval.* (Paris).

North, J.J.
1980 *English hammered coinage, vol. 1: early Anglo-Saxon to Henry III, c.600-1272.* (London: Spink & Son).

O'Meara, J. J. and B. Naumann (eds)
1976 *Latin script and letters A.D.400-800; Festschrift presented to Ludwig Bieler on the occasion of his 70th birthday.* (Leiden: Brill).

Oftedal, Magne
1956 *A linguistic survey of the Gaelic dialects of Scotland*; Vol.III *The Gaelic of Leurbost, Isle of Lewis* (Norsk Tidsskrift for Sprogvidenskap Supplement. Bind IV). (Oslo: H. Aschehoug & Co. (Whygaard)).

Okasha, Elizabeth
1968 'The non-runic scripts of Anglo-Saxon inscriptions', *Transactions of the Cambridge Bibliographical Society* IV: 321-338.

1971 *Handlist of Anglo-Saxon non-runic inscriptions.* (Cambridge: Cambridge University Press).

Oytfanghe, Marc van
1984 'Histoire du Latin, protohistoire des langues romanes et histoire de la communication', *Francia* II: 579-613.

Page, Raymond I.
1973 *An introduction to English runes.* (London: Methuen & Co. Ltd.).

1987 *Runes.* (London: British Museum Publications Ltd.).

Palmer, Leonard R.
1961 *The Latin language*[3]. (London: Faber and Faber).

Parkes, Malcolm B.
1982 *The Scriptorium of Wearmouth Jarrow.* (Jarrow Lecture.) Reprinted in Malcolm B. Parkes (in press) *Scribes, scripts and readers; studies in the communication, presentation and dissemination of medieval texts.* (London: The Hambledon Press): 93-120.

1987 'The contribution of Insular scribes of the seventh and eighth centuries to the "grammar of legibility"', in: A. Maierù (ed) *Grafia e interpuzione del latino nel medioevo.* (Rome: Edizioni dell'Ateneo): 15-29. (reprinted in Parkes (in press): 1-18.

Pei, Mario A.
1941 *The Italian language.* (New York: Columbia University Press).

Penzl, Herbert
1947 'The phonemic split of Germanic *k* in Old English', *Language* 23: 34-42.

1969/1957 'The evidence for phonemic changes', in: Roger Lass (ed) (1969) *Approaches to English historical linguistics.* (New York: Holt, Rinehart & Winston). (Originally published in E. Pulgram (ed) (1957) *Studies presented to Joshua Whatmough on his sixtieth birthday.* (The Hague: Mouton).)

Peters, Robert A.
1967 'Phonic and phonemic long consonants in Old English', *Studies in Linguistics* 19: 1-4.

Pheifer, J.D.
1974 *Old English glosses in the Épinal-Erfurt Glossary.* (Oxford: Clarendon Press).

Pilch, Herbert
1970 *Altenglische Grammatik.* (München: Max Hueber Verlag).

Plank, Frans
1986 'Paradigm size, morphological typology and universal economy', *Folia Linguistica* XX/1-2: 29-48.

Pokorny, Julius
1923 *A historical reader of Old Irish.* (Halle (Saale): Verlag von Max Niemeyer).

Pope, J.C.
1942 *The rhythm of Beowulf.* (New Haven: Yale University Press).

Pope, Mildred K.
1934 *From Latin to Modern French with especial consideration of Anglo-Norman: phonology and morphology.* (Manchester: Manchester University Press).

Price, Glanville
1984(a) *The languages of Britain.* (London: Edward Arnold (Publishers) Ltd.).

1984(b) *The French language: present and past.* (London: Grant & Cutler Ltd.).

Prins, A.A.
1974 *A history of English phonemes from Indo-European to present-day English*². (Leiden: Leiden University Press).

Prokosch, E.
1939 *A comparative Germanic grammar.* (Philadelphia: Linguistic Society of America, University of Pennsylvania).

Quin, E.G.
1975 *Old Irish workbook.* (Dublin: Royal Irish Academy).

Quirk, Randolph and C. L. Wrenn
1957 *An Old English Grammar*². (London: Methuen & Co. Ltd.).

Reszkiewicz, A.
1953 'The phonemic interpretation of Old English digraphs', *Osobne Odbicie Z Biuletynu Pol. Tow. Jezykoznawczego* XII: 179-187.

Robins, Robert H.
1979 *A short history of linguistics*². (London: Longman Group Ltd.).

1980 *General linguistics; an introductory survey.* (London: Longman Group Ltd.).

Robson, C.A.
1963 'L'Appendix Probi et la philologie latine', *Le Moyen Age* LXIX: 39-54.

Roger, M.
1905 *L'enseignement des lettres classiques d'Ausone à Alcuin.* (Paris).

Romaine, Suzanne
1982 *Socio-historical linguistics.* (Cambridge: Cambridge University Press).

Romaine, Suzanne (ed)
1982 *Sociolinguistic variation in speech communities.* (London: Edward Arnold (Publishers) Ltd.).

Ross, Alan S.C.
1937 *Studies in the accidence of the Lindisfarne Gospels.* Leeds School of English Language texts & monographs no. III, University of Leeds.

Russom, Geoffrey
1987 *Old English meter and linguistic theory.* (Cambridge: Cambridge University Press).

Samuels, Michael L.
1952 'The study of Old English phonology', *Transactions of the Philological Society*: 15-47.

1963 'Some applications of Middle English dialectology', *English Studies* 44: 81-94.

1972 *Linguistic evolution with special reference to English.* (Cambridge: Cambridge University Press).

Savin, H. and T. Bever
1970 'The nonperceptual reality of the phoneme', *Journal of Verbal Learning and Verbal Behaviour* 9: 295-302. [Not seen].

Sawyer, Peter H.
1968 *Anglo-Saxon charters: an annotated list and bibliography.* (London: Royal Historical Society, University College).

1978 *From Roman Britain to Norman England.* (London: Methuen & Co. Ltd.).

Schibsbye, Knud
1972 *Origin and development of the English Language, Volume 1: phonology.* (Copenhagen: Nordisk Sprog-og Kulturforlag).

Schlutter, Otto B.
1912 *Das Epinaler und Erfurter Glossar; I.Teil: Faksimile und Transliteration des Epinaler Glossars.* (Hamburg: Verlag von Henri Grand).

Scragg, D.G.
1974 *A history of English spelling.* (Manchester: Manchester University Press).

Serjeantson, Mary S.
1935 *A history of foreign words in English.* (London: Kegan Paul, Trench, Trubner & Co. Ltd.).

Sherley-Price, Leo (trans.)
1968 *Bede: a history of the English Church and people*[2]. (Harmondsworth: Penguin).

Shorter Oxford English Dictionary[3]
1944 (Oxford: Clarendon Press).

Sievers, Eduard
1885 'Zur Rhythmik des germanischen Alliterationsuerses', *Beiträge zur Geschichte der deutschen Sprache und Literatur* X: 209-314, 451-545.

1893(a) *Altgermanische Metrik.* (Halle: Max Niemeyer).

1893(b) 'Angelsächsische Metrik', in: H. Paul (ed) *Grundriss der germanischen Philologie.* Vol. 2/1 (Strassburg: Karl Trübner): 888-893.

1899 *An Old English Grammar*[2]. (Translated and edited by Albert S. Cook). (Boston: Ginn & Co.).

Sisam, Kenneth
1953 *Studies in the history of Old English literature.* (Oxford: Clarendon Press).

Sledd, James
1958 'Some questions of English phonology', *Language* 34: 352-358.

Smith, Colin
1983 'Vulgar Latin in Roman Britain: epigraphic and other evidence', in: H. Temporini and W. Haase (eds) *Aufstieg und Niedergang der Römischen Welt II, Principat.* (Berlin and New York: Walter de Gruyter): vol. 29.2: 893-948.

Spence, N.C.W.
1972 'Quantity and quality in the vowel-system of Vulgar Latin', in: James M. Anderson and Jo Ann Creore (eds) *Readings in Romance linguistics.* (The Hague: Mouton): 300-317. (Reprinted from *Word* (1965) 11.1).

Stahl, William Harris, Richard Johnson and E.L. Burge (transs.)
1977 *Martianus Capella and the seven liberal arts, Vol. II; The marriage of philology and Mercury.* (New York: Columbia University Press).

Stanley, Eric Gerald
1988 'Karl Luick's *Man schrieb wie Man sprach* and English historical philology', in: Dieter Kastovsky and Gero Bauer (eds) *Luick revisited: papers read at the Luick Symposium at Schloß Liechtenstein, 15-18.9.1985.* (Tübingen: Gunter Narr Verlag): 311-334.

Stenton, Frank M.
1955 *The Latin charters of the Anglo-Saxon period.* (Oxford: Clarendon Press).

1971 *Anglo-Saxon England*[3]. (Oxford: Clarendon Press).

Stevenson, Jane
1989 'The beginnings of literacy in Ireland', *Proceedings of the Royal Irish Academy* 89, C, number 6: 127-165.

Stockwell, Robert P.
1972 'Problems in the interpretation of the Great Vowel Shift', in: M. Estellie Smith (ed) *Studies in linguistics in honour of George L. Trager.* (The Hague: Mouton): 344-362.

1985 'Assessment of alternative explanations of the Middle English phenomenon of high vowel lowering when lengthened in the open syllable', in: Roger Eaton, Olga Fischer, Wilhelm Koopman and Frederike van der Leek (eds) *Papers from the 4th International Conference on English Historical Linguistics, Amsterdam, 10-13 April 1985.* (Amsterdam & Philadelphia: John Benjamins): 303-318.

Stockwell, Robert P. and C. Westbrook Barritt
1951 'Some Old English graphemic-phonemic correspondences: *æ, ea, α'*, *Studies in Linguistics*: Occasional Papers 4 (Oklahoma: Battenburg Press).

1955 'The Old English short digraphs: some considerations', *Language* 31: 373-389.

1961 'Scribal practice: some assumptions', *Language* 37: 75-82. Reprinted in: Roger Lass (ed) (1969) *Approaches to English historical linguistics.* (New York: Holt, Rinehart & Winston): 133-141.

Stockwell, Robert P. and Donka Minkova
1988 'The English vowel-shift: problems of coherence and explanation', in: Dieter Kastovsky and Gero Bauer (eds) *Luick revisited: papers read at the Luick Symposium at Schloß Liechtenstein, 15-18.9.1985.* (Tübingen: Gunter Narr Verlag): 355-395.

Stokes, Whitley
1890 'On the linguistic value of the Irish annals', *Transactions of the Philological Society*: 365-433.

Stokes, Whitley and John Strachan (eds)
1901 *Thesaurus Palaeohibernicus; a collection of Old Irish glosses, scholia, prose and verse, Vol. 1: Biblical glosses and scholia.* (Cambridge: The University Press).

Strang, Barbara M.H.
1970 *A history of English.* (London: Methuen & Co. Ltd.).

Ström, Hilmer
1939 *Old English personal names in Bede's History*; Lund Studies in English VIII. (Lund: C.W.K. Gleerup).

Sturtevant, Edgar H.
1940 *The pronunciation of Greek and Latin*[2]. (Philadelphia: Linguistic Society of America; University of Pennsylvania).

Sweet, Henry

1882/1953 *Anglo-Saxon Primer*[9]. Revised by Norman Davis. (Oxford: Clarendon Press).

1888 *A history of English sounds from the earliest period*[2]. (Oxford: Clarendon Press).

1897 *The student's dictionary of Anglo-Saxon.* (Oxford: Clarendon Press).

Sweet, Henry (ed)
1871-2 *King Alfred's West-Saxon version of Gregory's Pastoral Care,* Parts I and II; Early English Text Society, Original Series 45. (London: N. Trübner & Co.)

1876/1967 *Anglo-Saxon Reader*[15]. Revised by Dorothy Whitelock. (Oxford: Clarendon Press).

1885 *The Oldest English texts.* Early English Text Society, vol. 83. (London: N. Trübner & Co.)

1978 *A second Anglo-Saxon reader; Archaic and dialectal.* Revised by Terence F. Hoad. (Oxford: Clarendon Press).

Thurneysen, Rudolf
1980 *A grammar of Old Irish.* Revised and enlarged edition with Supplement. Translated by D.A. Binchy and Osborn Bergin. (Dublin: The Dublin Institute for Advanced Studies).

Toon, Thomas E.
1983 *The politics of early Old English sound change.* (New York: Academic Press, Inc.).

Trudgill, Peter
1983 *On dialect: social and geographical perspectives.* (Oxford: Basil Blackwell).

Twaddell, W. Freeman
1938 'A note on Old High German umlaut', *Monatshefte für deutschen Unterricht* 30: 177-181. Reprinted in: Martin Joos (ed) (1957) *Readings in linguistics I*[4]. (Chicago and London: University of Chicago Press): 85-87.

Väänänen, Veikko
1963 *Introduction au Latin vulgaire.* (Paris: Librairie C. Klincksieck).

Vachek, Joseph
1959 'Notes on the quantitative correlation of vowels in the phonematic development of English', *Mélanges de linguistique et de philologie* (Paris: Didier): 444-456.

Venezky, Richard L.
1970 *The structure of English orthography.* (The Hague: Mouton & Co., N.V.).

Venezky, Richard L. and Antonette DiPaolo Healey
1980 *A microfiche concordance to Old English.* (Newark/Toronto: University of Delaware/ University of Toronto).

Venneman, Theo
1971 'The phonology of Gothic vowels', *Language* 47: 90-132.

Vielliard, Jeanne
1927 *Le Latin des diplômes royaux et chartes privées de l'époque Mérovingienne.* (Paris: Librairie Ancienne Honoré Champion).

Vincent, Nigel
1988(a) 'Latin', in: Martin Harris and Nigel Vincent (eds) *The Romance languages.* (London: Croom Helm): 26-78.

1988(b) 'Italian' in: Martin Harris and Nigel Vincent (eds) *The Romance languages.* (London: Croom Helm): 279-313.

Wakelin, Martyn F.
1988 *The archaeology of English.* (London: B.T. Batsford Ltd.).

Wallace-Hadrill, J.M.
1967 *The Barbarian West; 400-1000.* (London: Hutchinson & Co. (Publishers) Ltd.).

Wallenberg, J.K.
1931 *Kentish place-names: a topographical and etymological study of the place-name material in Kentish charters dated before the Conquest.* (Uppsala: A.-B. Lundequistska Bokhandeln).

Watkins, T. Arwyn
1964-1966 'Points of similarity between Old Welsh and Old Irish orthography', *Bulletin of the Board of Celtic Studies of the University of Wales* 21: 135-141.

Watson, Andrew George
1979 *Catalogue of dated and datable manuscripts c.700-1600 in the Department of Manuscripts, The British Library,* Vol. I 'The Text'. (London: British Museum Publications Ltd.). [Not seen].

Weightman, Jane
1905 'Vowel-levelling in early Kentish; and the use of the symbol ę in OE charters', *Englische Studien,* Vol. 35: 337-349.

Weinreich, Uriel
1953 *Languages in contact: findings and problems.* (The Hague: Mouton de Gruyter).

Weinreich, Uriel, William Labov and Marvin I. Herzog
1968 'Empirical foundations for a theory of language change', in: Winfred P. Lehmann and Yakov Malkiel (eds) *Directions for historical linguistics.* (Austin: University of Texas Press): 95-195.

Weinstock, Horst
1987 'Nomen and potestas of Medieval letters', in: A.M. Simon-Vandenbergen (ed) *Studies in honour of René Derolez.* (Gent: Seminaire voor Engelse en Oud-Germaanse taalkunde R.U.G.): 684-708.

Wellisch, Hans H.
1978 *The conversion of scripts - its nature, history and utilization.* (New York: John Wiley & Sons, Inc.).

Wells, Christopher
1972 'An orthographic approach to early Frankish personal names', *Transactions of the Philological Society*: 101-164.

Wełna, Jerzy
1978 *A diachronic grammar of English; Part 1: phonology.* (Warszawa: Pánstwowe Wydawnictwo Naukowe).

Whitelock, Dorothy (ed)
1955 *English historical documents c.500-1042.* (London: Eyre & Spottiswoode).

Whittock, Martyn J.
1986 *The origins of England 410-600.* (London & Sydney: Croom Helm).

Williams, E.R.
1958 'Aelfric's grammatical terminology', *Publications of the Modern Languages Association* 73: 453-462.

Williams, Irene
1905 'A grammatical investigation of the Old Kentish glosses', *Bonner Beiträge zur Anglistik,* Heft XIX: 92-166.

Willis, James (ed)
1983 *Martianus Capella.* (Leipzig: BSB B.G. Teubner Verlagsgesellschaft).

Wormald, C.P.
1977 'The uses of literacy in Anglo-Saxon England and its neighbours', *Transactions of the Royal Historical Society* Fifth series, Vol. 27: 95-114.

Wrenn, C.L.
1933 '"Standard" Old English', *Transactions of the Philological Society*: 65-88.

1943 'The value of spelling as evidence', *Transactions of the Philological Society*: 14-39.

Wright, Joseph
1910 *Grammar of the Gothic language.* (Oxford: Clarendon Press).

Wright, Joseph and Elizabeth Mary Wright
1925 *Old English Grammar*[3]. (Oxford: Oxford University Press).

1928 *An elementary Middle English grammar*[2]. (Oxford: Oxford University Press).

Wright, Roger
1976 'Speaking, reading and writing Late Latin and Early Romance', *Neophilologus* 60: 178-189.

1981 'Late Latin and Early Romance: Alcuin's *De Orthographia* and the Council of Tours (813 A.D.)', in: Francis Cairns (ed) *Papers of the Liverpool Latin Seminar.* (Third Volume.) (Liverpool: Francis Cairns).

1982 *Late Latin and Early Romance in Spain and Carolingian France.* (Liverpool: Francis Cairns).

1983 'Unity and diversity among the Romance languages', *Transactions of the Philological Society*: 1-22.

Zupitza, Julius (ed)
1966 *Ælfrics Grammatik und Glossar*[2]. (With introduction and bibliography by Helmut Gneuss). (Berlin: Weidmannsche Verlagsbuchhandlung Max Niehaus Verlag).

A P P E N D I X 1

The following two articles originally formed part of Chapter 3 of this thesis. Limitations on space, however, have meant they have had to be included as an Appendix, rather than as part of the main body of the text. Permission has been given by the *Belgian Journal of Linguistics* for King (1988) to be reproduced and copyright rests with me for King (In Press).

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(a)

PHONOLOGICAL ECONSTRUCTION

ROBLEMS AND METHODS

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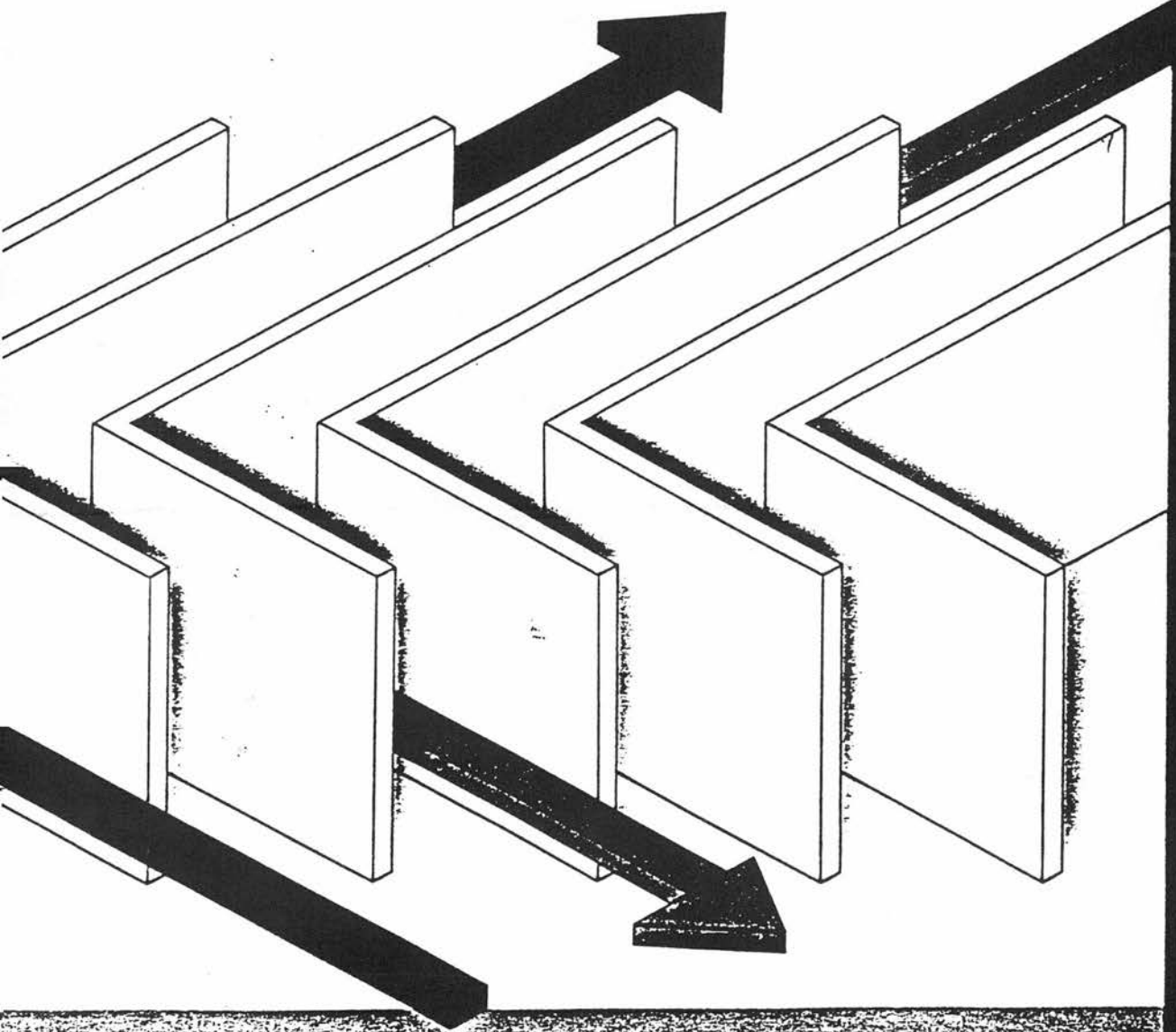

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SUMMARIES - RÉSUMÉS - SAMENVATTINGEN

Anne KING: The Long and the Short of it: Old English Spelling and Old English Vowels.

It is traditionally assumed that Old English, as a Germanic language, had length as a parameter of its vowel system, though there is little direct spelling evidence to support this assumption. This paper presents (where applicable) and assesses possible sources of evidence for the reconstruction of this parameter: orthoëpic, metrical, comparative (diatopic and diachronic), phonotactic, morphophonological, suprasegmental and, most importantly, the primary, synchronic evidence of Old English spelling. This latter source allows us to reconstruct a characterisation of Old English long vowels, as well as show how the parameter of vocalic length is relevant within the Old English phonological system. The lack of explicit and regular representation of vocalic length in Old English spelling is investigated in the context of Old English scribal practice, taking into account factors like orthographic resources (Latin and Old English) and orthographic and palaeographical ambiguity. It is concluded that the parameter of length is secondary to quality in the Old English vowel system, that vocalic length in Old English is predictable in many circumstances and that the vocalic length contrast in Old English is phonemic, but marginal.

Il est traditionnellement admis que le vieil anglais possédait, en tant que langue germanique, un paramètre de longueur qui était constitutif de son système vocalique; pourtant, l'orthographe ne livre que peu d'indications immédiates à l'appui de cette supposition. Le présent article présente et évalue les diverses sources d'information susceptibles d'aider, dans l'un ou l'autre cas, à la reconstruction de ce paramètre de longueur: il s'agit de sources orthophoniques, métriques, comparatives (diatopiques ou diachroniques), phonotactiques, morphophonologiques, suprasegmentales, mais avant tout, des indications synchroniques et de première main que nous livre l'orthographe du vieil anglais. Cette dernière source d'information nous permet d'aboutir, par reconstruction, à une caractérisation des voyelles longues; elle nous permet aussi de montrer dans quelle mesure le paramètre de longueur vocalique est pertinent dans le système phonologique du vieil anglais. L'absence d'une représentation explicite et régulière de la longueur vocalique dans l'orthographe du vieil anglais est replacée dans le contexte des pratiques adoptées par les scribes, ce qui permet de tenir compte de facteurs tels que les ressources orthographiques (du latin et du vieil anglais) ou l'existence d'ambiguïtés orthographiques et paléographiques. Il en ressort que le paramètre de longueur est secondaire, par rapport au timbre, dans le système vocalique du vieil anglais. Il apparaît également que la longueur vocalique est souvent prédictible, de sorte que les contrastes de longueur que connaît le vieil anglais sont phonémiques, mais marginaux.

THE LONG AND THE SHORT OF IT
OLD ENGLISH SPELLING AND OLD ENGLISH VOWELS

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1. INTRODUCTION[1]

"It is a well-known fact that length, especially in vowels, was irregularly represented in Germanic writing [...]" (Árnason 1980:84). Yet it is traditionally assumed that all Proto-Germanic (Pro.-Gmc.), and hence all Germanic (Gmc.) languages, including Old English (OE.) had length as a parameter of their vowel systems (cf. e.g., Wright and Wright 1925: paragraph (para.) 16; Prokosch 1939: paras. 36(b) and ff.; Campbell 1959: para. 99; Árnason 1980:97). This discrepancy between written evidence and assumption merits investigation - as Lass (1984:95) remarks: "The problem of [vowel] length is [...] more complex - and more relevant - than most scholars have admitted [...]". It raises several interesting questions, not only about vowel length in OE. scribal practice. Some of the basic questions which might be asked are formulated below; these will serve as a focus for discussion in this paper:

(1) Are we justified in assuming that OE. had length as a parameter of its vowel system?

(2) If we are, and if we leave aside for the moment spelling as a source of evidence for reconstructing this parameter and the interpretation of spelling as a method of reconstruction (on these see Sections 3 and 4 below), is there any evidence or method(s) which would support this assumption?

(3) If a parameter of length for the OE. vowel system can be reconstructed, what precisely can we learn about it from the evidence of OE. spelling? (with regard to e.g., moric characterisation, phonemic status, etc.).

2. APPROACHES TO RECONSTRUCTION

2.1. Questions (1) and (2), put forward just above, can appropriately be broached together. Attempts to reconstruct for the OE. vowel system a parameter of length may be made by means other than examining OE. spelling. Penzl (1969), though his paper is concerned primarily with the evidence for historical phonemic changes and its interpretation, provides a useful guide to sources of evidence and methods for phonological reconstruction.

2.2 Two of these, namely, Orthoëpic Evidence and Metrical Evidence, are not relevant to the exploration of the problem of OE. vowel length. We have no direct orthoëpic evidence for OE. (though a few grammars, like Bede's *De Orthographia* or Alcuin's work of the same name, were written in the OE. period, these describe Latin). With the exception of the 12th-century *First Grammatical Treatise*, which is concerned only with the Old Norse spelling and sound systems "evidence of this kind is not found for the Germanic languages until we reach early modern times" (Penzl 1969:14).

The metrical patterns of OE. poetry cannot provide evidence about a posited length parameter for OE. for the recognition, description and analysis of such patterns depends ultimately on prior knowledge of, or notions about, syllable quantity (and stress). Given this, it would be pointless, because circular, to use any information gained by analysis of OE. metrical patterns to make any inferences about syllable quantity or vowel length (on these, see Section 3.2.3 below).

2.3. One further source mentioned by Penzl (1969) - Comparative Evidence - could be expected to be fruitful in attempts to reconstruct this parameter. It may be separated into two kinds:

- **diatopic**: gainable by comparing OE. forms with those recorded in other, cognate Gmc. languages, or non-Gmc. languages, or both. The differences and similarities thus uncovered can help in the reconstruction of OE. forms and of the OE. phonological system; they can also help with postulating Indo-European and Gmc. protoforms;

- **diachronic**: this concerns information obtainable, or deductible, about OE. from post-OE. linguistic developments in English.

2.3.1. Of the two types of Comparative Evidence, the second is probably the more reliable (cf. 2.3.2 below). Limitations are imposed upon the first because its method relies on an absolute regularity of interlingual and intralingual phonological correspondences and developments between and affecting the morphemes and words in question. Such regularity is not infallibly to be found, however, as for instance, Lass (1986) shows.

Moreover, even with the requisite regularity, the diatopic comparative method yields nothing by way of direct evidence for reconstructing length as a parameter of the OE. vowel system. This can be seen if we compare the orthographic forms in other Gmc. languages of, for instance, the Verb 'to ascend' with its OE. orthographic form: OE. *stigan*, Old Saxon, Old High German *stigan*, Gothic *steigan*.

The use of the digraph <ei>[2] in the Gothic cognate is often interpreted (cf. e.g., Wright 1910, Venneman 1971) as indicating that the vowel it represents - presumably [i][3] - is a long one given that in Gothic a separate graph, <i>, is used to represent what, on the available evidence, seems to haven been its short congener, as in, e.g., *fisks* 'fish'. This orthographic difference, however, may plausibly instead be taken to indicate a quality difference between these vowels, namely <ei>: [i] and <i>: [ɪ] (cf. e.g., Marchand 1973). This alternative interpretation is lent weight by two considerations: (a) nowhere else in the written representation of the Gothic vowel system are two different symbols used to distinguish an etymologically long vowel from an etymologically short one; and (b) in the Greek alphabet, which was a partial model in the creation of the Gothic alphabet, the orthographic distinction <ei> versus <i> was apparently one of quality as well as quantity, i.e., [i] versus [ɪ] (cf. Allen 1974:61-62, 66-71). It is therefore by no means certain that the use of the digraph <ei> in the Gothic cognate indicates a long vowel; it follows that its use provides no real evidence of the existence of a parameter of vowel length either in Gothic or, by extrapolation, in any of the other Gmc. languages.

With the exception of this Gothic form, the stressed vowel in each of the remaining cognates (traditionally reconstructed as a long one) is represented identically by the graph <i>. This graphic identity, however, suggests merely an identity of vowel quality (presumably [i]) between the cognates; it reveals nothing about possible vowel length.

2.3.2. When we turn to diachronic Comparative Evidence, it seems that the existence of forms in Present-day English (PE.) like *bide* and *bid* - both Verbs - which derive from OE. forms (*bidan* 'to remain, await' and *biddan* 'to beseech, order' respectively) and which are very similar orthographically, but which differ in pronunciation, offers some evidence for a parameter of vowel length in OE. It is a reasonable surmise that the use of the same single graph <i> in stressed vowel position in the OE. forms indicates that the same vowel quality - probably high, front, unrounded [i] - was found in both words. Yet the PE. pronunciation of this segment differs in each word:

explanation of this PE. difference, given that in both words in OE. the stressed monophthongs were apparently identical with regard to the parameters of height, frontness and unroundedness, we can conjecture that they differed in OE. with respect to some other parameter. The only remaining parameter (relevant for these particular words) in terms of vowel system typology (cf. Lass 1984:134-139) is length. We can then (a) suggest that one of the two words had in OE. a long vowel; and (b) note that the development of a diphthong (PE.) [aɪ] from a long, high, front, unrounded monophthong [i:] is characteristic of the 14th-17th-century sound change, "The Great Vowel Shift" (described by e.g., Jespersen 1909:231ff.; Strang 1974:171-174; Lass 1984:126-129). If we accept (a) and observe that the stressed vowel quality change which affected the reflex of OE. *bidan* to produce PE. *bide* coincides remarkably well with the development described under (b), we can propose (c) that the Middle English (ME.) reflex of the stressed vowel in OE. *bidan* was affected by the Great Vowel Shift (GVS.). Since the GVS. affected only long, stressed vowels, the vowel in *bidan* must either have been long in OE. or have become long after the OE. period, but by the time of the GVS. For the latter to have happened, the reflex of the stressed vowel in OE. *bidan* would have to have been affected by "Middle English Open Syllable Lengthening" (MEOSL.) - see e.g., Lass (1987:126-127) for a brief description of this sound change. The reflex of OE. *bidan* looks like a prime "candidate" for MEOSL. - it would have been a disyllabic form in which stressed vowel occurred in a (potentially) open syllable, i.e., it immediately preceded the onset of the following syllable (for the syllable constituency model being adopted here and later, see Colman 1983a and Lass 1984:252). However, with the exception of the low vowel [a], MEOSL. involved an altering of vowel quality as well as lengthening. This is often shown by a change in spelling which suggests by the use of a different (di)graph the change in quality and by the use of a digraph (depending on the lexical item in question) a doubling, or lengthening of the vowel (cf. also 3.2.2 below). An instance of this in a word containing the stressed, high, front vowel being discussed here is OE. <wicu> → ME. <weke> → Early Modern English (EME.)/PE. <week>. The modification from a single graph <i> in OE. to a digraph <ee> in PE. allows the following development to be posited: OE. [i] → ME. [e:] (lowering and lengthening by MEOSL.) → EME./PE. [i:] (raising by GVS.).

Returning to the original example, OE. *bidan*, we find that the spelling of the stressed vowel does not alter, but remains as <i> in PE. Moreover, the PE. reflex [aɪ] of the OE. stressed vowel in this word is consistent with the development suggested above, namely, OE. [i:] → ME./EME. [ei] (diphthongisation by GVS.) → PE. [aɪ], but not with one involving MEOSL., i.e., OE. [ɪ] → ME. [e:] (lowering and lengthening by MEOSL.) → ME./EME. [i:] (raising by GVS.) → PE. [i:]. This evidence implies (d) that the stressed

Although this diachronic evidence (and, more particularly, its method) is fairly circular in that it depends on reconstructions of "regular" sound changes (cf. 2.3.1 above), there is some spelling and orthoëpic evidence from the EME. and later periods to support it, as well as that of PE. pronunciation. It is therefore, as stated already, more reliable than diatopic evidence. Furthermore, it is also more valuable - it suggests that OE. **did** have long vowels and seems, at least partially, to justify the assumption (cf. Section 1) that OE. had length as a parameter of its vowel system.

3. OE. SPELLING AND OE.VOWEL LENGTH

3.1. As we have just seen, failures and shortcomings are likely to be encountered in attempts to investigate the question of existence of vowel length in OE. if we rely only on Orthoëpic, Metrical or Comparative Evidence. Moreover, it is worth remembering that they all depend, in some way or other, ultimately upon the evidence of written forms - whether from PE., EME., ME., OE. or cognate Gmc. languages. When it is also considered that the extant, contemporary documents (and inscriptions) written in OE. (incomplete and limited though these are) constitute our only direct and firm evidence of and for OE., it is obvious that, of the means available to us to reconstruct the phonology of OE. in general and the postulated parameter of vowel length in particular, interpretation of the synchronic spelling evidence available in these written OE. sources (if it pays due regard to orthographic, phonological and scribal plausibility) offers the best foundation upon which to base conjectures about OE. vowel length.

3.2. The diachronic Comparative Evidence examined earlier hinted that OE. did have long vowels. When we turn to the evidence of OE. written forms, the existence of a parameter of vowel length is confirmed.

3.2.1. As we would expect (cf. Section 1, but cf. also 3.2.2 below), there is a lack in OE. spelling of any systematic representation of stressed vowel length. Despite this general absence of any distinction in spelling, information (which partly answers question (3) posed earlier in Section 1) on vowel length and its status in OE. can be gained from forms like the following :

(1) (a) <scima> 'shadow' cp. (b) <scima> 'brightness'

(2) (a) <hol> 'hole' cp. (b) <hol> 'slander'

(3) (a) <fullice> 'fully' cp. (b) <fullice> 'foully'

Each of pairs (1), (2) and (3) is what Colman (1983b:271) calls an "ideal minimal pair", i.e.,(for OE.) each contains two words of the same declensional or conjugational class and, where relevant, each word is identical to the other making up the pair with regard to conjunction of morphological categories (e.g. [Nominative, Singular,Masculine], etc.): both forms in (1) are Weak Nouns, both are Masculine, Nominative, Singular; those in (2) are Strong -*a*-stem Nouns, Neuter, Nominative, Singular; in (3) the forms are both Strong -*a*- stem Nouns and Neuter, Nominative, Singular. This means that meaning between each member of each pair is distinguished with no help from morphology (or spelling, since the same graph is used for the stressed vowel segment in each of the pairs of forms cited, indeed, the pairs are throughout identically spelt in each set). In other words, the semantic difference between them is motivated purely by a phonological difference. The possibility of each of these pairs being interpreted as homophones is rendered less likely by the subsequent history of at least pair (3): *fullice* (b) becomes PE. *foully* which suggests that this word had in OE. a tonic long vowel (cf. the discussion of the GVS. above); it follows that *fullice* (a), whose stressed vowel was not affected by the GVS. (it becomes PE. *fully*) had in OE. a short vowel. Since each member of each pair is identical to the other in spelling and, presumably also in articulation, here the difference of meaning between the members of each pair can really only be attributed to a difference between the tonic stressed vowels of shortness (on the evidence available to us,the (a) forms in each pair) and length (the (b) forms). There is an absence of any discernible (from the orthography or later developments in English) or recoverable tense versus lax quality distinction, such as is suggested by, for instance, Kuhn (1961:529) (cf. Lass and Anderson 1975:201-204, Hogg 1982; in addition see, on the vexed question of the existence at all of tenseness, and by implication, laxness, as a feature of vowel systems in any language, Lass 1976:3-50, especially pages 39-50).

The evidence of these minimal pairs points to two things: (i) OE. did have length as a parameter of its vowel system; and (ii) this short versus long vocalic contrast was a phonemic one. It also allows us to establish length as a segmental phonological feature, i.e., as a durational property of the vocalic segment (cf. Lass 1984:92).

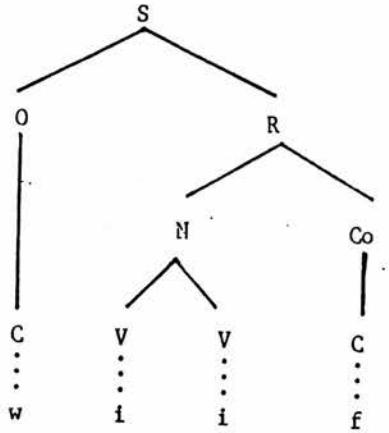
3.2.2. Though there is no systematic representation of stressed vowel length in OE. spelling, it is occasionally indicated, particularly in early manuscripts (MSS.) (cf. Campbell 1959: para. 26; Kuhn 1961: para. 2.19) by the use of a sequence of two identical vowel graphs e.g., <liim> 'lime', <cuu> 'cow', <breer> 'briar', <good> 'good', <aac> 'oak' - all from the *Corpus Glossary* (Cambridge, Corpus Christi College MS. 144, of the late 8th- or early 9th-century).[6]

From this spelling evidence, we can reconstruct a credible characterisation of long vowels in OE. as vowel clusters made up of two qualitatively-identical members (cf. Vachek 1959; Lass and Anderson 1975:6, 188-200, 204; Lass 1984:92). So, for instance, from the examples just given, <ii> in <liim> would represent [ii], <uu> in <cuu>, [uu], etc. This di-segmental, bimoric characterisation of the OE. long vowels seems justified by the fact that they pattern phonotactically with the long diphthongs of OE. (these are also, uncontroversially, di-segmental and bimoric - the only difference between them and long vowels being that the long vowels remain qualitatively the same for the duration of both morae while the long diphthongs have one quality for the first mora and another for the second i.e., V_1 V_1 as in [ii], cp. V_1 V_2 as in [æ:ɑ]. Both long vowels and long diphthongs are the only stressed vocalic units that are acceptable in OE. word-finally and, since "possible syllable structures mirror word structures" in languages (Colman 1986:228), syllable-finally too (cf. also, especially for the notation about to be used, Colman 1983a). This can be seen in, for example, *sǣ* 'sea' or *fēā* 'ever so little' with syllable structures $[[_{O}s][_{R}[_{N}æ:]]]$ and $[[_{O}f][_{R}[_{N}æ:ɑ]]]$ respectively.

These monosyllables consist only of O (Onset) and R (Rhyme); the latter has an N (Nucleus) but no Co (Coda). Forms containing short stressed vowels or short diphthongs, by comparison, require a Co to close the syllables in which they occur, thus: *sæd* 'sated, weary' -$[[_{O}s][_{R}[_{N}æ][_{Co}d]]]$; *fealh* 'harrow' (West Saxon form) -$[[_{O}f][_{R}[_{N}$ æ ɑ$][_{Co}$lx$]]]$.

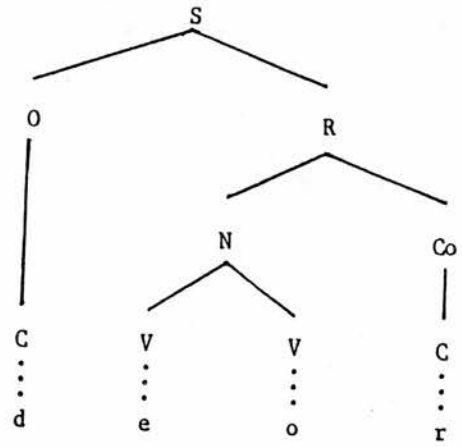
3.2.3. Vowel length is also attested indirectly in OE. spelling. In the case of the phonotactic patterning just described, the absence of a consonant graph (or graphs) in final position in a stressed syllable (i.e., representing a Co) gives the information that the syllable-final vowel graph, or digraph denotes a long vowel (or long diphthong). Similarly, the absence of a vowel graph denoting an inflectional suffix in certain paradigmatic forms of various Strong Noun declension classes (namely, the Nominative Plural forms of Neuter -*a*-stems or the Nominative Singulars of Feminine -*ō*-stems, Nominative and Accusative Singulars of Masculine -*i*-stems or Masculine -*u*-stems) tells us that the syllable in question is a heavy one, i.e., one containing either a short vowel plus two consonants or a long vowel (or long diphthong) - suffixes are not added to such syllables. Where there are no stressed-syllable-final consonant graphs as well as no vowel graph representing an inflectional suffix then the heavy syllable in question must contain a long vowel (or a long diphtong).

If we examine some relevant syllable structures, the moric, quantitative parity between long vowels and long diphthongs claimed in Section 3.2.2 is clearly revealed and thus given further support; in addition, more information about vowel length in OE. can be gained. The syllable-structure trees of Figures 1 - 4 are of Nominative Plural forms drawn from the paradigms of

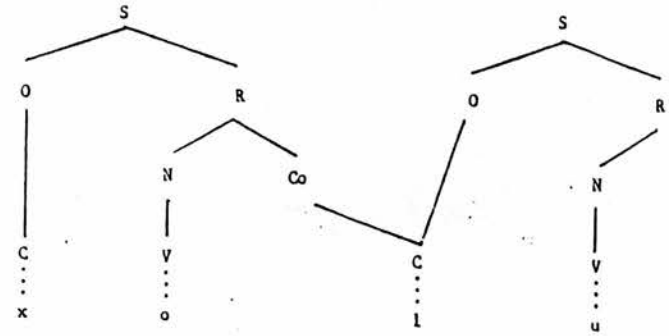


<wif> 'women'

Figure 2

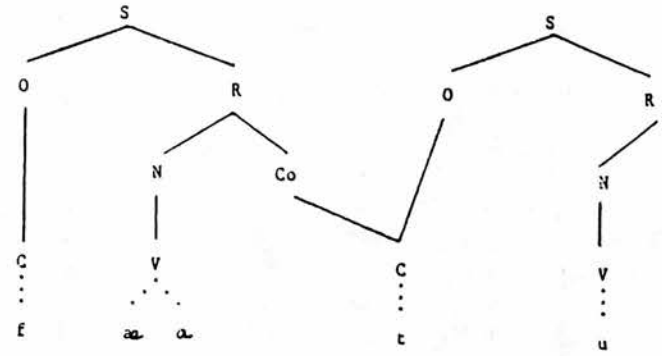


<deor> 'wild animals'



<holu> 'holes'

Figure 4



<featu> 'vessels' (Mercian form)

trees show that the words with long-stem (-VVC) syllables, i.e., those containing a long vowel or a long diphthong - Figures 1 and 2 - are alike in having in their structures not only branching Rhymes, but branching Nuclei too. This latter branching evinces the bimoric character of these Nuclei. Those with short-stem (-VC) syllables, i.e., those containing a short vowel or a short diphthong - Figures 3 and 4 - also have branching Rhymes, but their Nuclei, cp. those of Figures 1 and 2, are non-branching; this indicates their monomoric quantity and explains why they require the added "weight" of the inflectional suffix [u]:<u>.[7]

What these syllable-structure trees, in conjunction with the phonotactic patterning described above (Section 3.2.2), illustrate is that vocalic length in OE., in addition to being a durational property of segments (cf. 3.2.1), is also a structural property of syllables. Vowel length is therefore relevant at both the segmental and suprasegmental levels of the OE. phonological system.

4. OE. SPELLING, OE. VOWEL LENGTH AND OE. SCRIBAL PRACTICE

4.1. As indicated in the preceding Section the evidence of OE. spelling, on its own, or taken together with phonotactic and morphophonemic information, is valuable, first-of-all for helping to reconstruct and establish length as a parameter of the OE. vowel system and secondly for giving us some insight into the characterisation and nature of this parameter.

This evidence when looked into further, along with that of how moric vocalic units are, on the whole, represented in OE. spelling, allows us to make several inferences about OE. scribal practice in relation to the spelling of vowels, particulary long vowels. It will also tell us something more about the length parameter itself.

4.2. Moric vocalic units are variously represented in OE. spelling. One mora may, for instance, be represented by one graph. This is the case in e.g., *scima* 'shadow' (cited previously) where one graph <i> is used to denote a monomoric monophthong [ɪ]. Analogously, two graphs per two morae are also found in OE. MSS. Thus, for example, <ea>, representing the bimoric diphthong [æ:ɑ] occurs in forms like *seaþ* 'spring, pit'. Bimoric monophthongs were also, particularly in early MSS. (cf. Campbell 1959:para. 26; Kuhn 1961:para.2.19) indicated by the use of two identical vowel graphs in sequence, e.g., <liim>, etc. cited earlier (3.2.2).

On the other hand, one mora may also be represented by two graphs functioning as a single orthographic unit, namely, a digraph. In forms like *doehter* 'daughter' (Dative Singular) or *oele* 'oil', <oe> occurs, especially the monomoric monophtong [ø]. The denoting of one di-qualitative mora by two graphs is exemplified further in *eal* 'all' (a West Saxon form) where <ea> represents the monomoric diphthong [æɑ].

Conversely, two morae may be indicated by only one graph - recollect the minimal pairs put forward earlier (e.g., *scima* 'brightness'). An additional example of this usage is *gear* 'year' (a West Saxon form) where (according to Colman's recent and pausible interpretation (1985:12-17, 21-22)) <e> is functioning as a diacritic to mark the preceding consonant as palatal [j] and to indicate that <a> in this context represents the bimoric monophthong [æ:]. Finally, two morae could also be spelt with three graphs (a usage confined mainly to early MSS., most probably as a result of a graphotactic constraint on trigraph sequences, as suggested by Lass and Anderson (1975:34, 129, 280-281), following Stockwell and Barritt (1951:14-16)). Thus, the bimoric diphthong [æ:ɑ], the reflex of Gmc. [au], appears as <aeo> and <aea> (cf. Campbell 1959:paras. 37, 135, 276, 278).

4.3. The obvious inference to be drawn from these data is that scribal practice in the matter of representing vocalic moric units in writing was somewhat erratic. In other words, scribes of OE. had no reguiar, explicit way of representing vocalic length as either a durational or structural property of the OE. vowel system. There is no evidence to suggest that scribes approached the writing of OE. generally in a haphazard way (and cf. 4.4.2 below). Why then should long vowels be represented so infrequently and inconsistently in OE. spelling? Several factors combine to explain this. They divide roughly into two groups, one to do with the resources available to scribes of OE., the other with scribal procedure in correlation with the status of the parameter of vowel length in OE. These will now be discussed.

4.3.1. The successful expression of vowel length in OE. was partly contingent upon the orthographic resources available to scribes. The power of the OE. spelling system to represent the vocalic length parameter was limited; the size and contents of the graphic inventory were not equal to the task of precise and clear orthographic expression of vowel length.

This inadequacy is attributable in some degree to the nature of the spelling system used for writing OE. It was an adoption and adaptation of the spelling systems, based on the Roman-letter alphabet, already established and in use for the representation of Latin (Classical and Imperial, cf. Wright 1982 and, on the alphabet, see Allen 1965) and Old Irish (cf. Thurneyson 1946:18ff. and Harvey 1985). Allen in his *Vox Latina* (1965:9) observes of the Latin spelling system that it

> [...] comes very near to being completely phonemic. The principal shortcoming in this respect concerns the vowels, since no distinc-

is the Supine of the third conjugation *vero āmco*. It is identical in spelling to <uictum> 'in order to live', the Supine of another third conjugation verb *uiuō*; yet the tonic stressed vowel in the latter example was a long one and the two forms make up a minimal pair showing that length (at least for this vowel [i]) was phonemic. Given that the Latin spelling system ultimately formed the basis of that used for OE. and that it did not distinguish between short and long vowels, it is not surprising that such a spelling distinction was not widely or consistently made in OE. either

4.3.1.1. Successful expression, from the point-of-view of the scribe and the reader, of vowel length, depends also upon an absence of ambiguity in either orthographic or palaeographical representation. Representation of long vowels by writing twice the symbol associated with the vowel in question was certainly possible, and did (cf. Section 3.2.2) occur occasionally. But this practice was not free from ambiguity. As may be deduced from the evidence presented at 4.2, the use of two vowel graphs was apparently not necessarily associated by scribes, or readily associable by readers of MSS., with the representation of vowel length (or bimoric quantity).

This latter consideration applies particularly when two identical vowel graphs are used and more especially when the graphs are <i> and <e>. These were used as diacritic markers of palatality in a preceding consonant (cf. Stockwell and Barritt 1951:14-16; Campbell 1959:para.45; Colman 1985:12-17, 21-22). So, for instance, in a form like <gee> 'ye' (found in Northumbrian MSS., e.g., the *Lindisfarne Gospels* gloss [MS. Cotton Nero D.iv. of c.10th-century] or the gloss to the *Rushworth Gospels II* [MS. Bodleian, Auct. D.2.19.(3946), c.10th-century]) where the segments making up the word are [je:] it is not certain whether the first <e> graph is intended to collocate with <g> to represent the palatal quality of the voiced approximant [j], or with the second <e> graph to indicate the long vowel segment [e:].

The graphic sequence <uu> was also ambigous because <u> was, especially in early Northumbrian MSS., employed to represent the consonantal segment [w] as well as the vowels [u(:)]. So, for instance, this sequence as it appears in *Caedmon's Hymn* ("Moore" MS., Cambridge University Library MS. Kk.5.16, of the early 8th-century) - <uuldur-> 'glorious-' - could be interpreted as either [wu] or as [u:], particularly since it appears word-initially, i.e., at a syllable margin where consonantal [w] would be likely to occur (it is interesting to note in this connection that the list of forms cited by Kuhn (1961:528-529) to exemplify the use of double vowel graphs to represent long vowels contains no instance of word-initial <uu>).

was possible in OE. because some short vowels were written as a matter of course with a diagraph, e.g., [æ] or [ø]. Doubling of such digraphic sequences as <æ> or <oe> in stressed vowel position was likely to be confusing to the reader of manuscripts. Consider, for example, the variety of possible phonological interpretations engendered by a graphic sequence of non-ligatured <aeae>, such as could occur in uncial script. It could be construed not only as [ææ], but also (leaving aside the possibility that each graph could potentially also represent a bimoric segment) as, e.g.,

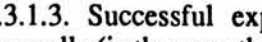
(1)	<a>	+	<ea>	+	<e>
	|		|		|
	[a]		[æɑ]		[e]
	[ɑ]		[e] + [ɑ]		[ə]
(2)	<aea>	+	<e>		
	|		|		
	[æɑ]		[e]		
			[ə]		
(3)	<a>	+	<e>	+	<ae>
	|		|		|
	[a]		[e]		[æ]
	[ɑ]		[ə]		

That this kind of misinterpretation was seen as likely, or certainly possible, is suggested by the fact that "[l] ength was rarely indicated [in OE. MSS.] by doubling when the vowel [...] was spelled with a digraph" (Kuhn 1961:529).

4.3.1.2. Perhaps more importantly though, collocations of double vowel graphs were highly likely to be palaeographically ambiguous, as is evident from instances like the following drawn from MSS. written in cursive minuscule scripts:

ıı : <ii> is a sequence easily mistaken for <u> or for <n>, when this is written without its usual descender as in cuııııı : *annu* (MS. Cotton Augustus II.91, of c.732, line 4), especially since *i* was not dotted as in PE. Conversely ıı : <u> could be mistaken for <ii> or for <n> (as above);

ıııı : <uu> could be misconstrued as <mi>, as <iiu> or as <uii>; the confusion caused to scribes as well as readers by these minim letters

can be gathered from a form like  : *animae* (MS. Cotton Additional Charter 19790, of c. 793-6, line 8) where an extra down stroke has been added by the scribe to *n*;

 : <ee> is readily misinterpretable as <et> as in the form  *set* (MS Cotton Augustus II.101, of c.741, line 9), or even <te>, e.g., the sequence  : *ter* from *praesbyter* in MS. Cotton Augustus II.91, line 4.

4.3.1.3. Successful expression of phonological segments or features generally (in the case, the parameter of vowel length) relies on the establishment and recognition of a graphic tradition whereby a particular graph or graphic practice regularly represents the segment or feature in question. Such a tradition could not, as the discussion above implies, be established for O.E.: (i) scribes lacked the necessary primary orthographic resources (4.3.1) - the Roman-letter alphabet had insufficient graphic and diacritic symbols and scribes of O.E. inherited a spelling tradition, originally used for writing Latin, which took little or no cognisance of long vowels; (ii) these limited resources made for equivocal orthographic representation (4.3.1.1); (iii) this ambiguity was compounded by the strong possibility of palaeographical ambiguity (4.3.1.2).

4.4. The lack of any systematic representation of vowel length in O.E. can therefore (perfectly reasonably) be attributed to the limitations imposed on clear expression by the orthographic and palaeographical resources available to scribes of OE. It is equally probable, however, that orthographic procedure dictated the general non-representation of vowel length in MSS., i.e., that the parameter of length, though this was apparently distinctive in O.E. was perceived or considered, or both, to be secondary to that of quality in the OE. vowel system. There are many indications - in the kind of phonological developments which affected stressed vowels and in the spelling practices adopted for representing stressed vocalic segments - which intimate that this was indeed the case in OE.

4.4.1. Phonological developments which affected vowels in Pre-OE. and OE. were almost invariably qualitative. Consider, for example, some of the changes which were significant from the structural point-of-view: "Breaking" (see Campbell 1959: paras. 139-155); "Restoration of *a*" (Campbell 1959: paras. 157-159); "*i*-Umlaut" (cf. Campbell 1959: paras. 190-199); and "Back Umlaut" (Campbell 1959: paras. 205-220). The process in each case was regressive assimilation whereby the stressed vowel segment changed[8] in articulation to become more like a segment (usually an unstressed vowel) in the following syllable (i.e., distant assimilation) or, in the case of "Breaking", more like the adjacent, following consonant in the same syllable (i.e., contact assimilation). Or, to be more precise, (1) all of these developments were context-conditioned - they were motivated by the influence of the quality of a following vowel or consonant; (2) they produced, as output, stem vowels with altered quality; and (3) the quality of these stressed vocalic reflexes was dictated by features of the articulatory quality of the vowel or consonant segment responsible for the assimilation (for instance, "*i*-Umlaut", where monophthongs are concerned, involved regressive assimilation of frontness (plus raising where necessary) with the stressed vowel moving towards the place of articulation of a high, front segment [i] or [j], syllabic or not, in the following syllable, i.e., back vowels, long and short, were therefore fronted and the low, short, front one was raised; see Lass (1984: 280-1) for an apt characterisation of this change).

For "*i*-Umlaut" and the other changes, vowel (or consonant) quality is therefore the crucial motivating and output-determining factor. This holds even for those developments like "Breaking" and "Back Umlaut" which produce diphthongs from monophthongs, for the diphthongisations involve no change in quantity - short and long vowels simply become di-qualitative and continue to function as monomoric and bimoric units respectively after the changes.

By contrast, very few quantitative changes affected vowels in OE. There were only two relatively important ones (which took place late in the period: by about the 11th-century) - "Homorganic Lenthening" (cf. Campbell 1959: para. 283) and "Trisyllabic Shortening" (Campbell 1959: para. 285). These did not, by comparison with the major qualitative changes, alter the phonological structure of the vowel system in any way.[9]

4.4.2. OE. spelling practices suggest too that quality, rather than quantity, was the most significant parameter of the vowel system. Vowel quality is almost invariably indicated. As evidence of this, we find that, though the OE. spelling system seems to have, on the whole, operated according to fundamentally phonemic, rather than phonetic, principles, scribes were willing nevertheless to use two graphs <a> and <æ> to signify two different vowel qualities ([ɑ] and [æ] respectively) which were in all probability allophonic (cf. Colman 1983a).

Or, further, consider the early OE. use of digraphs like <oe> (in, e.g., the *Corpus Glossary*) to indicate [ø] ← [o] by "*i*-Umlaut", or <ui> to denote [y(:)] ← [u(:)] by the same change (cf. Campbell 1959: paras.196, 199, 42: Kuhn 1961: para. 2.11). Notably, these digraphs were specially introduced and used by scribes in their first efforts to indicate these front rounded vowel qualities which were relatively new to OE. Scribes' keenness to represent the output of qualitative sound changes - even at the possible risk of having these digraphs interpreted as diphthongs (see King 1986: 57-58) contrasts markedly with the virtual absence of any attempts to indicate in spelling changes in vowel quantity, such as the lengthenings and shortenings men-

4.4.3. The evidence just presented on the precedence of quality over quantity as a parameter of the OE. vowel system, together with that presented in Sections 4.3.1 - 4.3.1.2, largely explains why vowel length in OE. was so irregularly indicated in the spelling. One further aspect of the status of the parameter of vowel length is, however, relevant and ought also to be considered. Recall the phonotactic patterning and the parity of syllable structures of long vowels and long diphthongs described at 3.2.2 and 3.2.3. The absence in written forms of words of a consonant graph (or graphs) in final position in a stressed syllable, together with the absence, in the case of the forms participating in the morphophonemic alternations, of a vowel graph denoting an inflectional suffix do not only, as noted in these Sections, inform us of the existence in OE. of the parameter of vowel length. They also mean that vocalic length in O.E. is predictable in many circumstances, at least at the suprasegmental level. Moreover, although vowel length, as evidenced in the minimal pairs cited earlier (3.2.1), is distinctive in OE. at the segmental level, ideal minimal pairs showing this are extremely difficult to find (even allowing for the fact that the surviving OE. data are incomplete and not as extensive as we would wish). This suggest that, even at the segmental level, the vocalic length contrast in OE. was marginal. The fact that it is predictable at the suprasegmental level in a wide range of forms adds to this and renders the length contrast even more marginal. This consideration helps explain further both the apparent orthographic procedural decision (cf. the beginning of this Section) not to represent vowel length in OE., and the infrequency and irregularity of such representation when it does occur (cf. e.g., Pheifer (1974: lx, footnote 2) for numbers of occurrence in the *Epinal* and *Erfurt Glossaries* and Ross (1937: 157ff.) for occasional occurrences in the *Lindisfarne Gospels* gloss).

The sum of all of the factors adduced up until now goes a long way towards explaining, or at least elucidating, why vowel length was not generally represented in OE. spelling. In this respect, OE. is not unusual; as Justeson remarks: "It is very rare for long vowels to receive separate signs from short vowels [in the writing system of any language]" (1976: 65). As to why this should be the case, certainly in OE., we ought to bear in mind that it probably did not seem to be essential, or even particularly important - it does not appear to have caused problems of comprehension for readers of OE. MSS.; the overall non-representation of the length contrast, tenuous though it was, could, more easily than the non-representation of the quality contrasts in OE., be compensated for at other levels of the grammar - the semantic, syntactic or morphological (or any combination of these).

Take, for example, the length distinction between the vowels in the minimal pair <is> 'ice' and <is> 'is'; although it is disguised by identical

were to occur in clauses like the following:

(1) *þa is is on þæm wætere*
then is ice on/in the water
'then ice is on/in the water'

(2) *þa is on þæm wætere is*
when ice on/in the water is
'when ice is on/in the water'

In (1), the <i> graph in the first occurrence of *is* would most plausibly represent short [i] as part of the sequence [is]: 'is' (3rd Singular Present Indicative of the Verb *ēom* 'to be') because the occurrence of the two *is* forms one immediately after the other, rather than the second occurrence being clause-final (as in (2)), suggests that here we have *þa* meaning 'then' accompanied by the expected OE. word-order pattern Adverb + Verb + Subject + Complement. The graph <i> in the second occurrence of *is* can then only represent long [i:] as part of the sequence [i:s] functioning as the Subject 'ice'. Similarly, in example (2), common OE. word-order patterns suggest that the syntactic sequence Adverb + Subject + Complement + Verb (with the Adverb *þa* meaning 'when') is exemplified. The second occurrence of *is* must then represent the verbal form in which <i>: short [i], and the first, the Noun 'ice', in which <i>: long [i:].

FOOTNOTES

(1) I should like to thank Fran Colman and John Anderson, despite their encouraging me in the dreadful pun of the title, for reading and commenting on the first draft of this paper. Thanks are due also to Eleanor for her impertinence and to Paul Taddei for these things and others þaðe tō lang tō secgenne syndon here.

(2) <ei> here, of course, is the usual Roman-letter transliteration of the ⋹ι digraph found in the Gothic alphabet.

(3) [ ] brackets are used here and generally throughout to represent broad phonetic values. / / brackets are used only where phonemic status is relevant. Similarly stressed vowels in written forms or transcriptions are not marked for length where this might prejudice the argument. Where this would not be the case, the usual editorial devices of superscribing a macron on, or appending a colon to, the relevant graphs or segments has been adopted.

(4) Both segments are here given as they would be realised in R.P. or English Standard English. It should be mentioned, however, that the word *bide* is nowadays largely confined to speakers of Modern Scots or Northern English dialect or Scottish Standard English, although the related verb *abide* is found in R.P.

(5) It could be argued that the length of the stressed vowel in *bidan* and the shortness of the stressed one in *biddan* are dependent on, in the first example, the vowel being followed by a single consonant [d]: <d> and, in the second, by a geminate consonant [dd]: <dd>; in other words, that the length or shortness of the vowels in these examples is determined by their respective phonetic contexts. However, the long vowel in *bidan* and the short one in *biddan* do occur in identical phonetic contexts, e.g., in the 2nd Singular Present Indicative forms of these verbs, i.e., *bitst* (which develops to PE. *bide*) and *bitst* (which becomes PE. *bid*). These forms from other parts of the paradigm and their PE. reflexes show that the length or shortness of the stressed vowels in the Infinitives is not dependent on whether or not the consonant following is single or geminate.

(6) Another device which is occasionally made use of in OE. MSS. is an acute accent mark placed over a vowel. According to Campbell (1959: para. 26) these "often stand on long vowels"; they are, however, also found superscribed on short vowels, e.g., *wég* 'way' and on unstressed (so far as we can tell) prefixes of Verbs, e.g., *ástah* 'ascended', as well as on Conjunctions, e.g., *hú* 'how' and Determiners, e.g., *þá igland* 'the island'. These latter uses obviously do not relate solely, or at all, to the marking of vowels as long ones (they may, however, have been employed as rhetorical or oratorical devices to aid the presentation and understanding of works being read aloud and listened to -see Clemoes 1952). For this reason, and because they are not strictly orthographic devices and do not tell us anything material about the presence or nature of vowel length in OE., they will not be considered further here.

(7) This information (that both long- and short-stemmed syllables have branching Rhymes) helps elucidate the OE. phonotactic constraint on word- or syllable-final short stressed vowels and the phonotactic patterning in this position of long vowels and long diphthongs. Both the constraint and the patterning can be seen to be conditioned by a syllable-constituency requirement that no Rhyme which does not branch, or contain at least one branching constituent, may stand in stressed syllable-final position (cf. Lass's description (1984: 254-255) of a similar phonotactic restriction in PE.). Thus, words with stressed word- and syllable-final long vowels or long diphthongs, like *sǣ* or *fēā* meet this requirement because, though they have no Coda, they have a branching Nucleus.

(8) Or, perhaps in the case of "Breaking", merely began to be represented in the spelling, cf. contributions to the "Digraph Controversy": Daunt (1939); Stockwell and Barritt (1951); Hockett (1959); etc. For a convenient summary, see Lass and Anderson (1975: Chapter III) and Lass (1983: 172-174).

(9) The quantitative changes merely affected the lexical distribution of short and long vowels. A qualitative change, like "*i*-Umlaut' added two new vowel qualities to the inventory - the front rounded vowels [y(:)] and, though not retained in all dialects, [ø(:)].

(10) It could be objected here that since spelling systems, once established, tend to be conservative, and the quantitative changes in question occurred after the period when the OE. (at least West Saxon) spelling system could be expected to have been established, these changes would not necessarily be shown in the spelling anyway. This argument does not hold, however, since late OE. quality changes, like the monophthongisation of diphthongs (cf. Campbell 1959: para. 329) are represented in the spelling of manuscripts and coins (on which see Colman 1984, 1988).

Allen, W. Sidney. 1965. Vox Latina: a guide to the pronunciation of Classical Latin. Cambridge: Cambridge University Press.

— 1974. Vox Graeca: a guide to the pronunciation of Classical Greek². Cambridge: Cambridge University Press.

Árnason, Kristján. 1980. Quantity in historical phonology; Icelandic and related cases. Cambridge: Cambridge University Press.

Campbell, Alistair. 1959. Old English Grammar. Oxford: Clarendon Press.

Clemoes, Peter. 1952. Liturgical influence on punctuation in late Old English and early Middle English manuscripts. Cambridge: Occasional Papers: Number 1, Department of Anglo-Saxon.

Colman, Fran. 1983a. Vocalisation as nucleation. Studia Linguistica 37/1, 30-38.

— 1983b. Old English /ɑ/ = /æ/ or [ɑ] = [æ]? Folia Linguistica Historica IV/2, 265-285.

— 1984. Anglo-Saxon pennies and Old English phonology. Folia Linguistica Historica V, 91-143.

— 1985. Old English *ie*: quid est?. Lingua 67, 1-23.

— 1986. A cæ̆g to Old English syllable structure. In Kastovsky, D., and A. Szwedek (eds.). Linguistics accross historical and geographical boundaries, I. Amsterdam: Mouton de Gruyter.

— 1988. What *is* in a name?. In Fisiak, J. (ed.). Historical Dialectology: Regional and Social. Amsterdam: Mouton de Gruyter.

Daunt, Marjorie. 1939. Old English sound changes reconsidered in relation to scribal tradition and practice. Transactions of the Philological Society, 108-137.

Harvey, Anthony. 1985. Studies in early Insular Celtic consonantal spelling and phonology, with particular reference to Irish material. University of Cambridge; unpublished Ph. D. dissertation.

Hockett, Charles F. 1959. The stressed syllabics of Old English. Language 35, 575-597.

Hogg, Richard M. 1982. Was there ever an /ɔ/-phoneme in Old English?. Neuphilologische Mitteilungen 83, 225-229.

Jespersen, Otto. 1909. A modern English grammar on historical principles I: sounds and spellings. London: Allen & Unwin.

Justeson, John S. 1976. Universals of language and universals of writing. In Juilland, A. (ed.). Linguisitc studies offered to Joseph Greenberg on the occasion of his sixtieth birthday, Volume 1. California: Anma Libri & Co.

evidence for Old English). Folia Linguistica Historica VII/1, 43-79.

Kuhn, Sherman M. 1961. On the syllabic phonemes of Old English. Language 37, 522-538.

Lass, Roger. 1976. English phonology and phonological theory; synchronic and diachronic studies. Cambridge: Cambridge University Press.

— 1983. Quantity, resolution and syllable geometry. Folia Linguistica Historica IV/2, 151-180.

— 1984. Phonology: an introduction to basic concepts. Cambridge: Cambridge University Press.

— 1986. Words without etyma: Germanic tooth. In Kastovsky, D., and A. Szwedek (eds.). Linguistics across historical and geographical boundaries, I. Amsterdam: Mouton de Gruyter.

— 1987. The shape of English; structure and history. London: J.M. Dent & Sons Ltd.

— and J.M. Anderson. 1975. Old English phonology. Cambridge: Cambridge University Press.

Marchand, J.W. 1973. The sounds and phonemes of Wulfila's Gothic. The Hague: Mouton.

Penzl, Herbert. 1969/1957. The evidence for phonemic changes. In Lass, R. (ed.). Approaches to English historical linguistics. New York: Holt, Rinehart and Winston, Inc. (Originally printed in Pulgram, E. (ed.). Studies presented to Joshua Whatmough on his sixtieth birthday. The Hague: Mouton).

Pheifer, J.D. 1974. Old English glosses in the Epinal-Erfurt Glossary. Oxford: Clarendon Press.

Prokosch, Eduard. 1939. A comparative Germanic grammar. Philadelphia: Linguistic Society of America.

Ross, Alan S. C. 1937. Studies in the accidence of the Lindisfarne Gospels. Leeds: Leeds School of English Language Texts and Monographs: No. 11.

Stockwell, Robert P. and C.W. Barritt. 1951. Some Old English graphemic-phonemic correspondences: æ, ea, ɑ. Studies in Linguistics: Occasional Papers 4. Oklahoma: Battenburg Press.

Strang, Barbara M. H. 1970. A history of English. London: Methuen & Co. Ltd.

Thurneyson, Rudolf. 1946. A grammar of Old Irish. Dublin: The Dublin Institute for Advanced Studies.

Vachek, Joseph. 1959. Notes on the quantitative correlation of vowels in the phonematic development of English. Mélanges de linguistique et de philologie. Paris: Didier.

Venneman, T. 1971. The phonology of Gothic vowels. Language 47, 90-132.

Wright, Joseph. 1910. Grammar of the Gothic language. Oxford: Clarendon Press.

— and E. M. Wright. 1925. Old English grammar[3]. Oxford: Oxford University Press.

Wright, Roger. 1982. Late Latin and Early Romance in Spain and Carolingian France. Liverpool: Francis Cairns.

(b) KING (IN PRESS)

You say [æjðər] and I say [æjhwæðər]? - interpreting Old English written data *

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1. The Problem

In all dialects of Old English (OE), before the tenth century, the lexemes man 'man, one', hand 'hand' and others of the same class containing the reflex of Pre OE /a/ /-Nasal Consonant (N), appear in manuscripts (MSS) spelt alternately with an <a> or an <o> graph in stressed vowel position (see Bosworth and Toller 1898 : 507-8, 666, 668-9; Campbell 1959: $130, n 2; Hogg MS: $$5.3, 5.5).

1.1 Traditional Interpretations

Most commentators on OE interpret this synchronic orthographic variation as a reflection of some kind of corresponding phonological variation and there is more or less a consensus of opinion among them on what this orthographic alternation means phonologically. Sweet (1888: 415, 412, $1 - 8), for instance, has this to say about the reflex of Pre OE /a/ in E [he uses Visible Speech symbols, transliterated here according to his own descriptions and the examples he cites to illustrate them]:

> .... a before nasals was at first no doubt simply [ɑ̈] which was afterwards rounded, the nasality being gradually lost giving [ɔ]... . It is possible that the fluctuation between a and o in the earlier period is purely graphic, [ɔ] lying between [a] and [o], and therefore capable of being expressed either by a or o.

Sweet seems to see the graphic <a>~<o> alternation, then, as scribal confusion arising from the limitations of the OE orthographic system which, because it contained only <a> and <o> for segments in this general range, was incapable of perfectly indicating the output [ɔ] of a sound change Pre OE [a] ⟶ [ã] ⟶ eOE [ɔ] /-N. He makes no statement on the phonological status of any of the segments involved. The position of Campbell (1959: §130, cf. also §§40, 48 and n 1) is not significantly different:

> .... before nasal consonants a development of PrGmc *a* to *ã* occurred .... which became in OE a sound distinct from OE *o* and at first also distinct from OE *a*. It is spelled both with *a* and with *o*.

From the rather vague description he gives in §32 and 130 of values for his italic symbols, Campbell appears too to be advocating a sound-change like the following, again with no comment on segment status and no reasons given for the spelling variation: PrGmc [a] ⟶ Pre OE [ã] ⟶ eOE [ã] /-N, (or a 'slightly rounded' segment - perhaps [ɒ̃]).

Kuhn (1961: §2.17) describes <a>~<o> as representing an allophone [ɔ] of /a/ /-N in eOE, but offers no explanation for the alternation of graphs. Lass and Anderson (1975: 61) say that 'the segment represented in some OE dialects as *o* < pre-OE **a* before nasals .... seems to be merely a variant of *a* .... that we cannot specify any further' (their *a* is described, p 206, as 'low, back, unrounded', hence presumably [ɑ]). They do not discuss the spelling variation. Hogg (MS: §5.3) puts forward a sound change more-or-less identical to Campbell's suggestion, but one expressed notationally-differently, thus:

$$\begin{bmatrix} V \\ +\ low \end{bmatrix} > \begin{bmatrix} +\ nasal \\ +\ back \\ \pm\ round \end{bmatrix} \ /-\ [+\ nasal]\ ,$$

i.e., Gmc [a] ⟶ Pre OE [a] ⟶ eOE $\left[\begin{Bmatrix}\tilde{\alpha}\\ \tilde{\text{ɒ}}\end{Bmatrix}\right]$ /-N. He accounts for the <a> ~ <o> alternation by saying that 'scribes were attempting to represent a low back unround or round vowel [ɑ] or [ɒ]'.

The usual interpretation of the spelling variation is, broadly, then, that it indicates the previous or synchronic operation of a sound change whereby PreOE [a] develops to (1) a nasalised and/or rounded and/or raised non-high back vowel phone which is awkward to represent in spelling for the reasons already given and, as a consequence, spelling of the output phone fluctuates between <a> and <o>, or (2) at least two sub-phonemic variants answering to the description just given, one rounded and/or raised, spelt <o>, the other rounded or unrounded, spelt <a>.

2. Toon (1983)

One of the most recent and detailed accounts in print in English of this graphic variation is that of Toon (1983). It differs quite radically in approach and conclusions from traditional interpretations like those just outlined and calls, therefore, for fuller consideration. A fair amount of the remainder of this paper will, then, be taken up with discussion of his interpretation, theoretical approaches and claims and the evidence informing them.

In his book, Toon devotes a chapter (ch 3, and references passim) to putting forward a case for a sound change PrGmc *ą ⟶ PrOE [ɒ] ⟶ [ɔ] : <o> /-N

(cf pp 49-50, 207, 209) which occurred in Mercian and passed thence to all areas under its political control, especially Kent, because the eighth- and ninth-century Mercian political hegemony over southern Anglo-Saxon England (cf 2.2 below) involved, according to Toon, a consequent linguistic hegemony. He sees evidence for the sound change he posits in the appearance, alongside <a>, of the <o> graph in non-Northumbrian MSS (principally Mercian and Kentish ones) of this period. He dismisses explanations of the <a> ~ <o> variation which involve 'free variation or scribal uncertainty due to 'dialect' mixture' (p 90). He claims instead that the apparent growth in the use of <o> bears written witness to the sound change beginning 'variably in a small subset of the lexicon' and diffusing 'through the lexicon on a word-by-word basis but sensitive to phonetic environment' (p 118), i.e., that the increase in the use of <o> (where it occurs) provides spelling evidence which charts the progression of his postulated sound change [a] ⟶ [ɔ] /-N from its beginning in Mercian through to 'near completion' (p 110) and finally, between 'AD 812 [and] 845', to a 'completed sound change' (110) in Mercian and Kentish.

Toon's interpretation of the data he discusses (his pp 42, 66-70) is governed primarily by his determination to see in it 'structured [linguistic] heterogeneity' (p 60) and, as a corollary of this, by a belief that ' .... linguistically-significant variation representative of sound change in progress can be found in these texts' (p 65). These concepts form an integral part of the theoretical framework adopted by Toon for the analysis of these and other early OE data. His approach is an amalgam of the methods used by Kuhn in his analysis (1939) of the linguistic data of the 'Corpus Glossary' and in his account of the syllabic phonemes of OE (1961) (see Toon pp 55-7) and, more especially, those employed by

Labov, Yaeger and Steiner in their 1972 sociolinguistic study of contemporary American English sound change in progress, with the theoretical framework employed there and proposed earlier in Weinreich, Labov and Herzog (1968) - see Toon pp 60-65.

The extent to which Toon's interpretation of the OE linguistic data is influenced by his interpretation of Labovian theory is indicated by the statements he feels able to make on the linguistic significance and effects of the eighth- and early ninth century Mercian political hegemony over southern Anglo-Saxon England:

> [all geographical areas under Mercian political control during this period constitute] the Mercian speech community. (pp 118, 201)
>
> .... eighth-century literacy .... was Mercian literacy. (p 38)

From the first statement, we can gather that, for the socio-cultural factor which, in the theory of Labov et al conditions linguistic behaviour and variation and causes linguistic change, Toon substitutes a factor socio-political. From the second, it appears that Toon sees the Mercian hegemony over southern England, especially Kent, as not only a political, but a linguistic one too.

Toon's application of this socio-politico-linguistic theory and the Labovian method to the interpretation and presentation of the data which show <a> ~ <o> variation results in his making two claims. His first is that they represent a record of the gradual progression in speech of the sound change already described above - see, for instance, his comments on the alternation in the

Corpus Glossary' (p 106) and those on the Kentish charter data (p 118). ost of the linguistic data, certainly as far as Kentish is concerned, for his period of Mercian political hegemony, are found in MSS of charters. hese contain at first only personal- and place-names (on which cf 2.4.2 elow), the bulk of each text being written in Latin. Toon supposes hat '[charters] are more likely to reflect the language of the dominant olitical force than that of the locale of the grant' (p 42). Following uhn (1943), Toon (p 67) adduces 'evidence of the influence of Mercian criptoria' in: Kentish-Mercian MSS — almost exclusively charters, as just noted. hese are traditionally described as 'Kentish-Mercian' because they con- ern grants of land in Kent made to Kentish grantees by, or with the permission of, Mercian king - see Sweet (1885: 421-5); Kentish MSS — traditionally esignated thus on the grounds that, to paraphrase Sweet (1885: 1-5), (1) they concern the granting of land in Kent by a King of nt to a Kentish recipient and/or (2) palaeographical comparisons among e extant charter MSS reveal similarities of handwriting and thus allow charters of the same place [presumably Sweet means oduced in the same place] and period to be grouped together as presentative of a particular dialect) (bracketed qualifications here are t original); (on these questions see also Campbell 1959: $$9, 14-15 d further below at Section 2.3).

Toon's second claim is made on the bases of (a) his supposition at the linguistic character of the charter data will, as a matter of urse, be determined solely by socio-political factors and (b) the laeographical (i.e., handwriting) evidence he reproduces (it should be ted that Toon sometimes misrepresents Kuhn's use of the terms palaeo- aphy and palaeographical by using them to mean 'orthography' and 'ortho- aphical' - see, for instance, Toon's p 71). It is that any occurrence

of <o>, rather than <a>, in the relevant environment in Kentish texts (i.e., those associated in any way with Kentish matters) provides evidence not only for the chronological progression of the [ɒ] ⟶ [ɔ] sound change in Mercian speech, but also that 'Mercian political domination' did 'effect' this 'linguistic change in Kent', ie, Kentish speech (cf his pp 118 and 212).

2.2 External Historical Evidence

2.2.1 Toon's attempt to explain the synchronic (and diatopic) <a>~<o> variation and its relation to OE phonology in a way that is new, in its greater, closer reference to historical and palaeographical information than is found in, eg, Sweet (1885,1888), Campbell (1959) or Hogg (MS) (though cf Hogg 1988), is certainly commendable. As Hogg (1988: 188) points out: 'By now we are all aware that dialectal divisions can correspond rather closely to political .... divisions. .... But students of Old English language have rarely bothered to investigate .... [the] political structure [of Anglo-Saxon England]....'. However, knowledge about the history and politics of Anglo-Saxon England is a sticking point - this will become evident below - as Colman (1988: 116) says, 'the term 'reconstruction'' [is] as applicable to our concepts of Anglo-Saxon society [as it is] to those of Old English language'.

2.2.2 Toon's case for a Mercian linguistic hegemony relies almost totally on the fact of Mercian political hegemony. His interpretation of the latter is that it was one of direct and constant rule and absolute, unopposed power (cf his pp 25-43). But, while the fact of Mercian political hegemony over southern England from c725 to c825 (spanning the reigns of the Mercian kings Æthelbald, Offa, Cenwulf/Cuthred, Ceolwulf and Beornwulf) is not in doubt,

its details, as Stenton (1971:236) points out, 'will always be uncertain' (cf also his pp 206 and 230 and Brooks 1984:113). If the historical details of the Mercian hegemony are in doubt to this extent, it follows that any possible social, cultural and linguistic effects attributable to it are even less certain.

Moreover, when the few known historical details of Mercian and Kentish political relations in particular are considered, Toon's interpretation of them can only be described as oversimplified and strained. The impression given by him of constant and direct rule of Kent by Mercia, especially during the reigns of Kings Æthelbald and Offa, is, for instance, contradicted by Æthelbald's apparent policy of minimal interference in the rule of the early-to-mid-eighth-century Kentish kings (cf Brooks 1984:111-2); by the seven- or eight-year break in Mercian control of Kent which was occasioned by the murder of Æthelbald in 757 and the consequent civil war in Mercia which allowed Kentish rule of Kent to be (temporarily) re-established (cf Stenton 1971:204-7), as well as by the two-year hiatus in Mercian rule in Kent which occurred after Eadberht Præn - a Kentish native - seized the Kentish throne on Offa's death in 796 (cf Stenton 1971:225 ; Brooks 1984: 114, 121).

Toon's notion that Mercian power in Kent was absolute and unopposed also has very little basis in (known) fact. Mercian influence and power were resented and resisted in Kent - not welcomed. This is suggested by events and factors like: the occurrence and outcome of the Battle of Otford in 776; the change in Offa's title in 'Kentish' charters (see 2.3.1 below) and coins minted for him in Kent, after c785; Archbishop Jænberht's hostility towards Offa which necessitated Offa's establishing a controllable and dependably-loyal southern archbishopric at Lichfield and, finally, the four-year dispute

between Archbishop Wulfred (despite his apparently strong Mercian ties) and Cenwulf and Ceolwulf (cf. Stenton 1971: 207; 215-8, 226; 229-30 and Brooks 1984: 113; 119-20; 114-20; 134-6).

Toon's case for a Mercian political hegemony over Kent, certainly of the absolute kind which any possible corresponding and dependent linguistic hegemony would require, has therefore practically no external historical evidence to support it.

2.3 Palaeographical Evidence

2.3.1 Kuhn's (1943) palaeographical evidence (cf 2.1 above) is taken over and employed by Toon to further support his claim for a Mercian linguistic hegemony over native Kentish speakers in Kent. But the evidence itself, Toon's interpretation of it and the use to which he puts it are highly questionable.

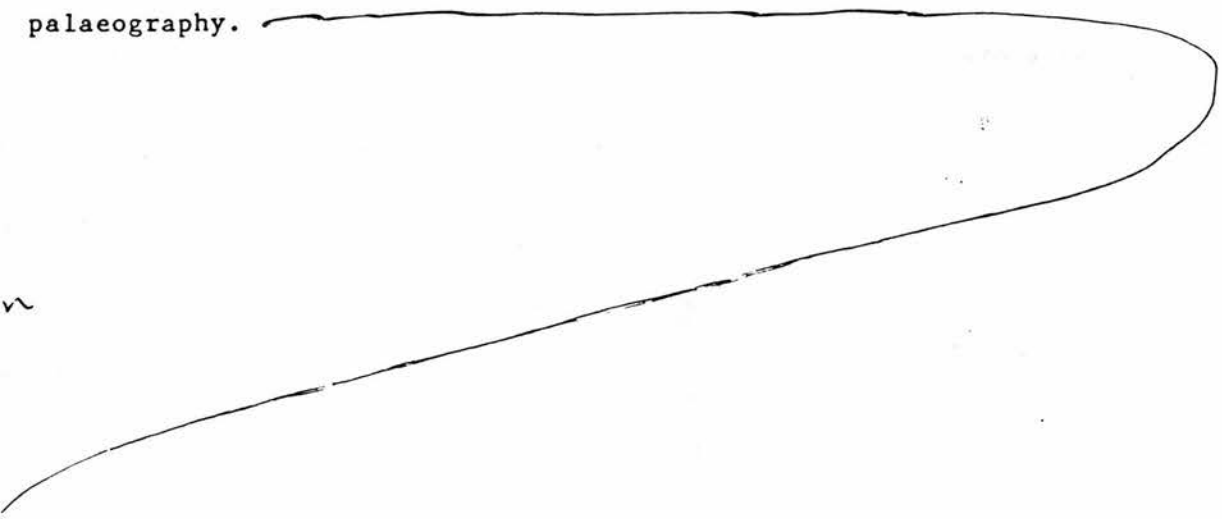
Partly following Keller (1906: 20-21), Kuhn (1943: 464-6, 473, 458) associates three particular written forms of the letters g, t and ð, which occur in charter MSS of, roughly the first third of the ninth century particularly those which were written during the reign of the Mercian king Coenwulf (798 - 823), with 'Mercian' (he does not specify whether 'Mercian' for him is a linguistic, geographical or even political designation). Kuhn's hypothesis that a correlation obtains between these three letter-forms and 'Mercian' rests on an assumption, shared also by Toon, that charters bearing the name of a Mercian king will of necessity be Mercian in linguistic or palaeographical character, or both. The historical evidence just put forward does not bear out this assumption. Nor does the evidence of the charters. The original and contemporary charter

3326[1], MS Cotton Augustus II.98, dated 808, which is not wholly atypical, uggests, in fact, that the circumstances surrounding the production of OE harters were far from being as simple and straightforward as Kuhn, and Toon, uppose. It records a grant by King Coenwulf of Mercia to Eaduulf, his hegn, of land at Culingas (Cooling), Kent. This estate lay within the iocese of Rochester, rather than Canterbury, yet the wording of the charter ollows Canterbury, rather than Rochester formulae (see below 2.3.2). Accordng to Brooks (1984: 169-70) it was 'produced by a Canterbury clerk or .... ased upon a Canterbury model'. On the charter itself, however, is stated actum est in loco .... quae a uulgo uocatur tome þoroig .... eodem die pascha', .e., it was transacted on Easter Day at Tamworth, described by Toon (p 37-8) s 'the royal city' where 'Mercian kings held court' 'at Christmas and aster' (King Coenwulf was at Tamworth in 808 apparently - cf. Hill 1984: 3).

Given that the information obtainable from the charters themselves about he actual production of the charter MSS will often be as inconclusive, th regard to linguistic or geographical origin or political affiliation this instance shows (cf also 2.5.1.1 below) and that the details given of the rocess of recording all such transactions are vague (we do not know, for ample, whether the OE place- and personal-names contained in the MSS re written down from dictation at the time or copied from previously-itten archive documents or from an ad-hoc written source, say, a wax blet engraved at the time of recording) it is doubtful whether charter S can be identified as 'Mercian' with the certitude taken for granted d relied upon by Kuhn (see eg p 476 of his 1943 paper) and, following m, Toon.

Underlying Kuhn's correlation of these three letter-forms with

'Mercian' is the further assumption that they are peculiar to 'Mercian' palaeography.



The lack of a sufficient number of contemporary, original MSS from the various different mediaeval cartularies of the major churches like Worcester, Rochester, Christ Church, Winchester, etc. means that there is too little scope for the kind of broad-ranging and inclusive palaeographical examination necessary before a correlation like Kuhn's can be made. Furthermore, the correlation manifestly cannot hold in the face of the following considerations: (1) the same ð letter-shape occurs also in the tenth-century Northumbrian MSS containing the glosses to the 'Lindisfarne Gospels' (Kuhn 1943: 465 acknowledges this and classifies the letter-form as 'Anglian ð'); (2) of the charter MSS cited and used by Toon (pp 67-70), not all those traditionally classified as 'Mercian' contain these three letter-forms. Indeed, seven out of the nine 'Mercian' charter MSS - B154, B187, B201, B203, B230, B416 and B452 - do not; (3) when these letter-forms do occur, they are not confined exclusively to 'Mercian' MSS. So, in addition to the Northumbrian MSS just cited as containing 'Anglian ð', they appear, for instance, in the following MSS of charters traditionally classified as 'Kentish': B330, B332, B380 and in one - B536 - classified by Sweet (1885) as a 'Surrey' charter (on these charters, see further below).

Aside from the poor quality of Kuhn's palaeographical evidence, its paucity also is remarkable. It consists of only three letter-shapes. It is untypical for all of these to co-occur in the same MS, so when Toon in his charter list (pp 67-70) places an asterisk before the 'charters in which Kuhn found evidence of the influence of Mercian scriptoria' (p 67) this 'influence' in the case of two-thirds of the MSS listed by Kuhn and used by Toon amounts to either only two letter-shapes (eg, B318 which contains 'clear examples of Mercian g and t' (Kuhn 1943:468); one clearly-written letter-shape (eg, B274 which has 'clear examples of Mercian g [but only] doubtful or compromise t's' (Kuhn 1943: 468); or only one letter-shape (eg, B310 which has 'clear examples of Mercian t' (Kuhn 1943:468). Moreover, as Kuhn admits (1943:470) 'some of [the charter manuscripts in his list] contain very few clear examples [of those letter-shapes they do contain and] not one of these documents uses the letter-forms exclusively'. The 'Mercian g, t' and 'Anglian ð' letter-shapes are in fact only one variant in each case of three possible shapes for each of these letters (cf Kuhn 1943: 470, 460-8).

There is therefore no persuasive argument to connect in theory or in practice, the limited occurrence of three (or two if 'Anglian ð' is excluded as being not strictly 'Mercian') letter-forms with 'Mercian' as Kuhn does (see also Brooks 1984: 168 and n 69).

3.2 A close scrutiny of the circumstantial evidence provided by the contents of the charters, together with a detailed, extensive examination of the palaeography of the individual MSS in which they are written, produces a rather different, and convincing, explanation for the appearance of these letter-forms. Brooks (1984: 169), by analysing the

formulae of the extant, contemporary ninth-century charters, concludes that, no matter who the grantor of the land being granted was, or in which cartulary a particular charter was lodged after the OE period, 'the location of the estate that was the subject of the grant was more important'. He found, too, that 'the significant distinctions [of formulae] follow diocesan, rather than political divisions'. Combining these two observations, he suggests that normally the Canterbury (Christ Church) scriptorium seems to have been responsible for the production of charters concerned with land in East Kent; Rochester with those in West Kent; Worcester with those in its diocese, etc. It is surely much more reasonable on the whole to link and attribute the writing of charter MSS with and to religious, rather than political centres and areas and to scribes trained in them (it was in such religious scriptoria, after all, that literacy in Latin and OE flourished and ultimately had its source). The evidence of formulae - formal, prescribed and largely standard expressions - and that deducible from the comparison and grouping together of their use in charter documents (the recognition of whose legality would almost certainly depend precisely upon a high degree of standardisation and adherence to precedent) form much more secure bases for interences about the origin of charter MSS than the tenuous, unsupported hypotheses of Kuhn and Toon. They also provide welcome back-up for the fairly frequent statements in the charters of where a grant was transacted because these could refer, literally, to the place of transaction or agreement which need not necessarily accord with the time and place of the recording or writing-up of the grant.

Making use of such circumstantial evidence and informed, detailed palaeographical study of the MSS, Brooks (1984: 170, n76) identifies the MSS of the following charters as original and contemporary 'products of

he Canterbury writing office': B162, B289, B332, B335, B341, B348, B370, 373, B378, B380, B384 (x 2), B400, B536 (cf Toon's charter MSS list - pp 7 - 70). Evidence, in the form of formulae, the diocesan location of he land granted and information given by the charters (eg, B330 which states hat Wulfred, Archbishop of Canterbury 'recited and confirmed' the words nd details of the charter, which grants land in East Kent to Christ hurch, Canterbury, and is not a royal diploma, etc.) allows a further three harter MSS plausibly to be added to those listed above and identified by rooks as deriving from the Canterbury scriptorium. These are B321, B318 nd B330.

This list of charter MSS accounts for seventeen out of the twenty-ne MSS described by Toon (p 67-70), after Kuhn, as containing the 'Mercian' etters. They span the period 798 to 835 (only one charter, B536, is later han this - see below). Brooks produces evidence (1984: 168, 170; 191-3) hich suggests that the scribe who wrote three of these seventeen 'Mercian'-etter charters was Wulfred, Archdeacon at Christ Church, Canterbury before ecoming (cf Brooks (1984: 132; 170-1)) Archbishop of Canterbury from 5 to 831, viz. B162, B370 and B373. All three of these charter MSS ntain all three of the distinctive letter-forms of g, t and ð. Wulfred mself seems to have been responsible for teaching Latin and for establish-g the style of handwriting which was characteristic of the Canterbury riptorium for about 40 years from c799 to 839. All of the seventeen charters, oduced, according to Brooks, in the Canterbury scriptorium, which ntain the distinctive letter-shapes were produced during Wulfred's time ere. These letter-shapes disappear within four years of Wulfred's death 831, with the exception of the one charter - B536 - mentioned above ich is dated 873; the scribe who wrote this appears, however, to have en a scribe trained at Canterbury during Wulfred's terms of office there

(cf Brooks 1984: 168). When all of this evidence is brought together, it can, with justification, be concluded that the introduction and use of the three distinctive letter-forms are attributable to Archbishop Wulfred himself, i.e., that they were a peculiarity of Wulfred's own handwriting which was passed on to those scribes under his tuition and supervision at Canterbury. Kuhn (1943: 480) believes that Wulfred was 'probably Kentish'. It is equally possible that he was a Middle Saxon; he may well have been Mercian (cf Brooks 1984: 132; 197). Even if he were Mercian, however, the source of the distinctive letter-forms can only rationally be ascribed to Wulfred personally and not to his Mercian origin. The factors enumerated above which count against a 'Mercian' derivation may be invoked again here. To these should be added the consideration that what Kuhn (1943: 480) calls 'the Mercian domination [between 731 and 764 and, with gaps, between 792 and 805] .... built up by [the Archbishops of Canterbury] Tatwine, Nothhelm, Cuthberht, Breguwine and Æthelheard [who were Mercian, though there is uncertainty in the cases of the last two - cf Brooks 1984: 81; 120] ' at Christ Church (hence presumably also in its scriptorium) signally failed to produce these so-called 'Mercian' letter-forms.

2.3.3 Given, therefore, the poor quality and paucity of Kuhn's palaeographical evidence and the lack of any warrantable correlation between the letter-forms and 'Mercian', Toon's unhesitating and uncritical acceptance as fact of Kuhn's very dubious hypothesis, renders invalid and pointless Toon's attempt (pp 71, 111) to show that a correspondence between the presence of these letter-forms and <o> spellings in charter MSS provides firm evidence to support his claim for a Mercian linguistic hegemony over native Kentish speakers in Kent (cf also 2.5 and 3.1 – 3.5 below).

As a prerequisite to his claim, Toon takes for granted that at least
wo three-way correlations hold: (1) 'Mercian letter-forms'~ <o> spellings
~ Mercian; (2) no 'Mercian letter-forms'~<a> spellings ~ Kentish (cf his
tatement (p 110) relating to B254 and B339). Neither of these holds in view
the palaeographical evidence just put forward, but even if that were laid
ide for the moment, his correlations still do not hold. His list (pp 108-9)
twenty-nine charter MSS, with and without the letter-forms, presented
ong with the [a]/-N(C) data they contain, includes five charters - B154,
87, B230, B201, B416 - which have data with only <o> spellings and which, on
e evidence of Worcester formulae, Worcester diocesan locations for the
tates being granted and Worcester archival provenances, can only be
garded as Mercian in origin, but which, despite these Mercian 'credentials',
ve no 'Mercian letter-forms'. Further, he cites (p 110) two charter MSS in part-
ular - B254 and B339 - which contain only <a> spellings (two examples in
ch), which have no 'Mercian letter-forms' and which, he alleges, are
ntish. The first charter, however, (a grant from King Offa to his thegn
berht) was transacted at Chelsea and the second, according to the
ual circumstantial evidence and to Campbell (1973: xiii-xxxv passim; 20)
a Rochester charter (these, as noted above are different in many respects
om Canterbury ones - Toon's 'Kentish' label is too all-inclusive). The
mainder of the charters, traditionally described as 'Kentish', 'Mercian-
tish' and 'Mercian', which have no 'Mercian letter-forms' - five of them:
2, B319, B326, B343, B452 - use a mix of <a> and <o> spellings in the
evant data.

Finally, the remaining seventeen charters, all of which contain, according to
n, the 'Mercian letter-forms' also do not agree with his correlations.
y six - B274, B289, B293, B341, B348 and B400 - use <o> spellings
lusively in what little [a] /-N(C) data they contain; the other eleven
<a>, as well as <o>.

2. Toon's Selection and Handling of Data

2.4.1 Hogg (1988:190) puts forward two 'rules' concerning the interpretation of data available in eOE MSS: 'Firstly, have respect for scribes [of OE] and the data they present us with; secondly, make sure that the linguistic analyses we reach have some plausibility'. On the latter rule, see 2.5 below; the former, in connection with data and Toon's treatment of them will now be discussed.

2.4.2 Not only are Toon's palaeographical~spelling data~dialect correlations spurious, but his selection and handling of the [ɑ] /-N(C) data are, in some cases, linguistically inexact and inept. So, eg, from six charters (B330, B332, B348, B378, B384 and B536) he selects the preposition 'on, in', spelt <on>, and from one (B330), he selects the adverbial form spelt <hwonne>, 'when', to use as evidence for his postulated [ɑ] ⟶ [ɔ] /-N(C) development in Mercian and thence, by Mercian influence, in Kentish Campbell (1959: §333), however, describes on and hwonne as two of 'a group of words generally used in low sentence stress [in which the graph] o appears'; he continues, 'spellings with a are rare'. Indeed they are so rare that Bosworth and Toller (1898: 744-6) list only five instances where on appears in MSS spelt with <a> rather than <o>. Considering that the examples cited by Toon are spelt exactly as would be expected in all dialects of OE, it is hard to see how they provide evidence for his theory.

Apart from the fact that Toon uses place-names as linguistic data without taking into account that proper names of a language may function linguistically, certainly phonologically, differently from commonwords (cf. Colman 1988; Lass 1973), his handling of such data is objectionable in other ways. Take, for instance, the place-name variously spelt

- as Toon cites it (p 109) - <grafonaea> (B335), <grafoneah> (B341 and
3348). This corresponds to Present-day English (PE) Graveney in Kent
(see Ekwall (1940: 194)). Although Toon does not say explicitly that he
.s concerned with the reflex of Pre OE [a] /-N(C) only in stressed syllables,
:his can only be the case for two reasons: the nasalising and/or rounding development,
/here it did occur, was, it seems, confined to stressed syllables (cf
- though further research is needed on the <om>/<an> variation in inflectional syllables,
:ampbell 1959: $$ 333; 377, 380). Toon does not present as data in his
ists (pp 108-9) forms to be found in the MSS of the charters cited by him
n these pages which contain the reflex of the Pre OE vowel in unstressed
yllables, eg, <offan>, an inflected form of the personal-name Offa (B187),
r <.... to ðære cirican saldon> 'to the church gave' (B330). Yet the
o> /-<n> spellings in the place-name cited above appear to represent an
nstressed vowel. This is suggested by (1) the forms as they are actually written
n the MSS. Toon presents these as compounds, but in the case of the B335
orm, another - uncompounded - version of the name - <grafon
.ea> - occurs in the same MS; in the case of the B341 and B348 forms,
:parate words - <grafon eah> - are written in the MSS and,
urther, the name is repeated in both MSS as two separate words: <grafon
ea> (B341) and <grafon ea> (B348). The MS representation agrees with
id supports Wallenberg's etymology for the place-name: grafan 'to dig, cut,
arve' (cf Go, OHG graban) + ēa 'river' (1931:117). It can be seen then
iat <o> in these forms of the name occurs in unstressed vowel position
id represents the reflex of an originally unstressed vowel; (2) lOE/eME (eleventh
ntury) orthographic renderings of this name, eg <gravanea>, <grafene(a)>
:f Wallenberg 1931:117). The variation in spelling and the use of the
raph <e> in particular, point to the confusion and coalescence in an
specified vowel ([ə]?) of the unstressed back vowels in the eleventh century
f Campbell 1959: $$377-8). Again, therefore, these data are disqualified
evidence for Toon's thesis.

Two more place-names cited by Toon - <hegeðonhyrs> and <sponleoge> (B343) - whose <o> /-<n> spellings are supposed to represent the reflex of PreOE [a] /-N in fact do not. Wallenberg (1931: 173 ff) gives the following etymologies for these names, respectively - hæg + ðorn + hyrst 'haw' + 'thorn' + 'hurst'; spōn + lēah 'chip, shaving' + 'lea'. <o> in the first name therefore represents [o], the reflex of Gmc [o], cf OHG dorn, ON þorn, and in the second, [o:], derived from Gmc [æ:] /-N, cf OHG spān, OFr spōn, etc. (and see Campbell 1959:$127) - these forms should not therefore be included among Toon's data.

The place-name element spelt <homm(e)> (eg <iognes homme> in B384) or <homm> (eg <colanhomm> in B400) is linguistically dubious as, according to Ekwall (1940: 203-4), it could derive from either ham(m) (with etymological [a] /-N) or hām (with etymological [a:]). These two forms, then, provide only questionable evidence for Toon's argument. Furthermore, if the element does derive from hām, <o> is most unlikely.

Other forms containing <o> spellings in Toon's list of data can be satisfactorily explained otherwise. The <o> graph in <noman>, for instance, found in B452 and B536, could conceivably have been written due to confusion with the Latin root nom-, present in almost every charter using Latin formulae at this period, eg, ... ubi nominatur ... (B274, B162, B199, B370, etc), or nomen, nominant, nomen est (B154). Near-contemporary analogies for this phenomenon exist. Sweet (1885: 187) states, for example, that 'a frequent source of error' on the part of the 'Vespasian Psalter' glossator, who too was working backwards and forwards from Latin to OE, 'is the repetition of part of the corresponding Latin word in the gloss .... sometimes the whole of the Latin word is repeated as in nomen : nomen'. Kuhn (1943: 467) also speaks of the possibility of such interference from Latin spelling.

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Finally, the <o> spellings (found alongside some <a> spellings) in he words lond and mon(n) - in their root forms, as here, or as an element n compound nouns like aldormonn (B330), bōclonde (B384), or place-names, g, babinglond (B332) and personal-names, eg, dudemon (B321) - make up he largest proportion of Toon's <o>-spelling data. These land and man ype words and and occur again and again in the charters. It is not outwith he bounds of possibility that the process of standardisation due to the opying of archival exemplars noted above as characterising the appearance f formulae, should extend also to the spelling of these lexical items. he fact that they recur so often and the probable influence of previously- ecorded forms of these words, especially as elements in names (cf earlier n this section), make these words strong contenders for orthographic tandardisation. If, then, the use of <o> in the land, man etc. forms s attributable to a spelling habit, and the appearance of <o> in nomen s ascribable to the influence of Latin spelling, these data give no pport to Toon's proposition.

5 The Labovian Framework, OE Written Data and OE Phonology

written data in themselves mean nothing; it is only in the light of a eory (or theories) which inform(s) and guide(s) selection and interpretation them that they potentially become, and can function as, evidence for OE onology (cf Lass 1980: ch 2 / : Appendix ; Romaine 1982: 3 - 4, 274-5 ; Colman 1988: 113).

5.1 Toon's theoretical approach (already described at 2.1 above) to the tenth-century e- / spelling variation in OE MSS is essentially a Labovian one. Various oblems attend the workings and notions of Labovian variationist eory generally (see Romaine 1982 : chs 8 and 9, especially pp. 34-5, 244, 246-7, 262-3, 266-7 and $$ 9.2 to 9.2.3). part from these, however, Toon's approach is surely

inapplicable to OE written data because (a) he conflates sociolinguistic variation and linguistic variation in general (from a non-societal point of view, as in lexical diffusion studies) and (b), as Lass (1976: 225-6) points out:

> The utility of variation theory decreases sharply the further back we go in time [because its] methodology requires two kinds of material: quantifiable low-level data, and a set of parameters (social, stylistic) against which variation can be plotted, and directionalities uncovered, etc.

The requisite set of parameters is not available to us because we are dealing, particularly in the case of OE written data, with what Lass (1976:226) describes as 'monostylistic', 'formal' documentary material produced by a 'single class' in a culture with 'minority literacy' (cf also, eg, Hogg 1988). Neither is the first type of material available to us - we have no access to spoken OE. MSS containing written data cannot be considered, as they are by Toon (p 66) to be 'informants' in the Labovian sense. As our primary means of access (along with other written or epigraphic sources like coin- or rune-spellings) to OE phonology, the question of how they are interpreted - in particular how the relationship between spelling and phonology is viewed - is crucial (cf King 1988: 161).

2.5.1.1 Toon attempts (understandably?) to circumvent the obstacle we face in having no access to speakers of OE by asserting, in a virtual re-statement of Luick's 'man schrieb wie man sprach', that scribes wrote practically as they spoke: 'a scribe's habits are motivated by surface phonetic forms' and 'scribes (unconsciously) recorded their phonetic habits' (pp 210-11). Even if this were true (cf

Section 3 below), Toon's attempt would founder because (a) the sine qua non of his assertion is the possession of precisely that knowledge we lack, viz, information about who the scribes were (in most cases); which diatopic variety/varieties of OE they spoke, or were familiar with (or even if they spoke OE[3]); whether or not, depending upon the age of the scribe, he was a conservative or advanced speaker of this variety or these varieties; how representative scribes were of the 'speech community' to which they belonged (cf 2.5.1 above and references therein to Romaine 1982), etc, etc; and (b) the written data in OE MSS cannot, as Labovian variationist theory requires, (cf, eg, Romaine 1982: 246-7) be located precisely in place or time. Toon himself admits (p 196) 'we cannot know the exact geographical provenience [sic] of most manuscripts'. Even if we did, as Colman (1988: 112) says, 'the provenance of the manuscript is not evidence that the language represented therein reflects the dialect spoken in that particular area ...'. The dating of MSS is also often uncertain. Beside texts like either the 'Moore' or 'Leningrad' 'Caedmon's Hymn' which can be dated fairly precisely to c737 on the external evidence of the genealogical and chronological notes appended to the end of both MSS, are others like the Corpus Christi College, Cambridge MS 144 of the 'Corpus Glossary', whose date has been disputed. Toon, for instance (pp 72-7 and 206) gives the chronology (a) 'Épinal' c700; (2) 'Erfurt' c750; (3) 'Corpus' c800 and bases his argument on this for the progression of his postulated sound change. Hessels (1906: ix) thought 'Corpus' must have been written in the early part of the eighth century (this would place it somewhere between 'Épinal' and 'Erfurt' according to Toon's dating of these two texts) and Campbell (1959:$12) suggests that, although 'Corpus' usually has later forms than 'Épinal' and 'Erfurt', it would appear, nevertheless, to be the oldest MS (this would place it before 'Épinal' and 'Erfurt'). Sweet (1885: 5), on palaeographical grounds, dated 'Corpus' to 'not later than the first half

of the eighth century' (this would make it roughly contemporary with 'Erfurt'). Chadwick (1894-1899: 249) (circularly) argues that the linguistic forms of 'Corpus' point to a date at the end of the eighth or the beginning of the ninth century. (Of the four suggested datings, this one alone would allow Toon to place 'Corpus' after both 'Épinal' and 'Erfurt' and so allow him to use it as evidence for the chronological progression of the sound change he puts forward).

2.5.1.2 Toon's interpretation of the relationship between spelling and phonology (cf 2.5.1 and 2.5.1.1) in the OE MSS he examines depends on the naive and dubious supposition that OE spelling accurately, directly and always reflected OE pronunciation, i.e., that OE spelling was allophonic. Even if we knew how and with what linguistic output the basic inventory of OE phonemes was transformed in articulation and transmission into actually-realised, or pronounced, sound-segments, the available written evidence suggests strongly that (1) the orthographic and phonological systems of OE operated partially independently of each other; (2) the orthographic system of OE operated at a fundamentally phonemic level; (3) OE spelling variation did not always correspond with, or reflect, OE phonological change; and (4) phonological change was not necessarily represented in OE orthography. Evidence for each of these claims will now be put forward.

3 OE Spelling and OE Phonology

3.1

The partially-autonomous nature of the OE orthographic system is demonstrated by, for instance, written forms like sēcean 'to seek' and gear 'year' in which, as Colman (1985: §4) suggests, the <e> graph following the graph representing

palatal consonant (<c> : /tʃ/ in the first form and <g> : /j/ in the econd) in each case most credibly functions as a diacritic to indicate the alatality of the preceding consonant (cf also Campbell 1959: $45 ; Penzl 1947: $$1.4, 1.7, 3.3 ; Lass and Anderson 1975: 280 and references).

.2

he claim that the OE orthographic system functioned with regard to the epresentation of phonological units at an essentially phonemic level is upported by the consideration that

> .... people possess what .... EDWARD SAPIR .... called 'phonemic intuitions' which come into action as soon as they begin attempting to write their own languages alphabetically. ... [I]t is natural that in their early attempts at representing their languages by means of an alphabet men should write them phonemically. (Jones 1967:253)

ecent experimental evidence confirms the linguistic reality for speakers certainly of PE) of the phoneme as the principal 'overt, conceptual unit of sound]' (Derwing et al (1986: 63-4)).

The likelihood of this consideration applying in the writing of OE strengthened by the following factor: the spelling system used for iting OE was an adoption and adaptation of the Roman-letter-based one ready established and in use for writing Latin. Allen (1965:9) serves of the latter system that it 'comes very near to being completely onemic'.

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In practice, written data bear out these expectations that OE spelling will, by and large, represent only the most significant/distinctive phonic segments, i.e., phonemes. So, as a very basic instance of this, the use can be cited of two different graphs <d> and <t> in the following examples, where the graphs are commutable word-initially, -medially and -finally and are obviously capable of signalling a difference in meaning, indicates that the use of differing graphs is intended to represent in spelling a phonemic difference - <d> : /d/ ≠ <t> : /t/:

<dūn> 'hill'	≠	<tūn> 'enclosure, farm'
<lǣdan> 'to lead'	≠	<lǣtan> 'to let'
<bād> 'he/she/it waited'	≠	<bāt> 'he/she/it bit'.

Moreover, a primarily phonemic basis for OE spelling seems only reasonable when the practical difficulties attending a fundamentally phonetic spelling system are borne in mind, viz., a much larger inventory of graphs and graphic devices than was available (or employed) for writing OE would have been necessary in order to represent even major allophonic differences (such as that between [a] and [æ], cf Colman 1983). A phonetic spelling system, like this, apart from being cumbersome and impracticable to use would also nullify the communicative function of MSS since it would render their contents virtually inaccessible to anyone other than the scribes who wrote them. Furthermore, if OE spelling did operate at a phonetic level, the MS data we have would, overall, show much less regularity and stability of graphic usage than are to be found.

3.3

The use of two different graphs <ð> and <þ> (though the latter was diachronically and diatopically restricted, cf Blomfield (1935: 95)) for the most part in free variation where they do co-occur, to represent the dental fricative, or <u(u)> or <ƿ> ('wynn') for [w], cf Campbell (1959:$$ 57.6, 60) provide evidence to support the claim made above that OE spelling variation did not always correspond with, or reflect OE phonological change. These instances of diachronic spelling variation operate only at the level of orthography, as does that of the replacement of the eOE trigraph <aea> by <ea> (Lass and Anderson 1975: 280; Stockwell and Barritt 1951: 16).

3.4

Absence of diachronic alteration in OE graphic representation does not necessarily signify absence of OE phonological change. The graph <c>, for instance, remained in use throughout the OE period, despite the fact that the Pre OE velar /k/ it originally represented developed various reflexes, ie, [k] : <c> in <cuman> 'to come', [k'] : <c> in <bæc>. [tʃ] : <c> in <cirice> 'church', (Campbell 1959: $$ 426-9; Hogg 1979; Lenzl 1947 and references therein).

3.5

From the evidence just presented, it must be concluded that Toon's interpretation of the relationship between OE spelling and phonology is not acceptable - he ignores the autonomous orthographic aspect and, in effect, denies system to OE spelling qua system. Since OE orthography does not

merely reflect OE pronunciation, it follows, then, that Toon's reading of the <a>~<o> /-<$\begin{Bmatrix} m \\ n \end{Bmatrix}$(C)> data - the result of an over-literal interpretation of spelling forms - as marking in writing the progress of a contemporary, corresponding sound change is contentious.

4 OE Spelling and OE Sound Change

To the remarks made and discussions presented on this question already should be added the logical consideration, expressed succinctly by Colman and Anderson (1983:169) that 'spelling is always later in representing a sound change than the sound change itself'; if familiar, established spellings are going to be changed to make them correspond to the result(s) of a sound change, there would be no point in changing them until after the sound change had occurred. The question then arises of how the occurrence of sound changes is indicated synchronically in spelling.

4.1.1 The usual pattern, certainly for OE, is that after the occurrence of a sound change, a period of synchronic orthographic variation ensues, which is succeeded by a settling-down into use of a different graph (or graphs) to represent the new segment (or segments) - at least if the sound change is a phonemic one and its output is lexicalised, cf. Weinreich et al (1968:187). This pattern is exemplified by the OE unstressed front vowels which were, in the early eighth century still distinct, but which, by the end of that century had, with the exception of [i] : <i> in derivational suffixes like those represented by <-ig> <-isc>, <-ing>, etc. merged in the indistinct vowel [ə] : <e>, cf Campbell (1959:$$369, 371). The originally distinct vowel-graph spellings <æ>, <e> and <i> gave way to orthographic free variation as a result of the

change occurring, <æ> appearing for original <e>, <e> appearing for original <i>, etc, and were finally replaced (except for <i> in the suffixes mentioned above) by the different vowel graph <e> when the merger had been phonemicised/lexicalised.

4.1.2 The appearance of back spellings is also a sure indication that a sound change has been completed, whether or not it is a phonemic one: the case of the spellings of the Kentish long and short front stressed vowels in the ninth century may here be cited, cf Campbell 1959: $$288-292: <æ> and <y> appearing where <e> would be expected as in <wær> for expected <wer> 'man', or <byrene> for <berene> 'of a/the she-bear'.

4.2

When Toon's <a> ~ <o> /-<{m, n}>(C)> spelling data are examined (pp 98-110), especially those from the charters (pp 108-9), what emerges is a pattern of fluctuation of the <a>~ <o> spellings, but one which involves temporal and/or locative co-occurrence. Moreover, the use of <a> in the pre-tenth-century period never dies out completely, except in the gloss to the 'Vespasian Psalter', dated by Toon (p 80) to the 'first part of the ninth century' and in which, according to him (p 107) only <o> is used in the relevant context. Even in this MS, however, <a> does appear in loanwords from Latin, cf Hogg (MS: $5.4), eg, plant 'plant' (cf Latin planta), geplantades x 2 '(you) planted' (cf Latin plantasti), or organan 'musical instrument' (cf Latin organum), etc. The native OE inflexions on geplantades and organan - Verb of Weak Class 2,2nd Sg Pret Ind and Weak Noun Plu respectively - suggest that these words had been assimilated into at least the OE grammatical system and therefore, in all probability, into the phonological system too. If (cf Fisiak 1968:42) Toon's sound change was, as he insists, all-pervasive and 'completed [by]

AD .... 845' (p 110) by which time the 'Vespasian' gloss, including these lexical items, would have been written, according to Toon's dating, surely [ɑ] in these words (regardless of whether native or loan stress placement is assumed since Toon includes - cf 2.4.2 above - unstressed vowel data in his discussion) would automatically, because of the /-N context, have been affected by the sound change producing Toon's [ɔ] and would, therefore, if Toon's correlation [ɔ] : <o> is correct, be expected to be spelt with the <o> graph? Yet the graph <a>, rather than <o>, appears /-<n(C)> to represent the non-high back vowel. (These <a> spellings could, however, just conceivably be analogical, cf 5.1).

Middle English (ME) evidence shows that, of the geographical areas subject in the OE period to Merc political control, in only one is this <a>~ <o> variation followed by a complete, constant change of graph to <o>, as Toon's claim of a 'completed' sound change requires (cf Weinreich et al 1968: 187; Campbell 1959: $130; Hogg MS: $5.5; Prins 1974: $3.7, p 241 and Strang 1970: $159). The additional fact that in all areas, apart from this West Midlands one, the reflex of eOE [ɑ] /-N merged in ME with /a/ and not /o/ - cf Kuhn (1961: $3.3); Hogg (MS: $5.5) - as would be expected from Toon's suggested sound change output [ɔ], further argues against a phonemic, lexicalised sound change having occurred (this would have involved the [ɔ] output being identified, and merging, with the reflex of Pre OE /o/, developing thence to /o/ in ME).

Although Toon is inexplicit about the phonological status of the segments involved in his posited sound change, his statements about it being 'completed' are based upon what he interprets as a change to use of the <o> graph and they thus involve lexicalisation. These factors suggest that he believes the sound change [ɒ] ---> [ɔ] /-N to have been a phonemic one,

as Sweet (1888) also seems to do . (It should be noted that Toon's output value seems an unlikely one, as Hogg 1982 shows). Because spelling variation of the kind here being discussed cannot reasonably be interpreted as mirroring the chronological progress of a sound change as it happens and because the notion that this is a phonemic sound change resulting in lexicalisation can be applied to only one area of original Merc territory, Toon's suggested sound change cannot be accepted (cf also 5.2 below).

5 Let's call the whole thing off?

An explanation, if there is one, must therefore be sought in some of the options either rejected by Toon, or not considered by him. Various alternatives are available to account for the <a> ~ <o> spelling fluctuation.

5.1 Analogy

One of these is analogy. 'The operation of analogy can result in variation in [the] spelling of .... a particular sound; and it is not always clear whether the analogy is one based on phonology or spelling' (Colman and Anderson 1983:169). Analogy based on Latin spelling is certainly an acceptable explanation for the <o> spellings which occur among Toon's data from the Latin ~ OE charters (cf 2.4.2). Spelling analogy would explain only a few of the forms with <o> graphs, however.

.2

ion-phonemic sound change

second, more productive, explanation is that a non-phonemic sound change,

Pro Gmc /a/ ⟶ Pre OE [ã] ⟶ eOE $\left[\begin{Bmatrix}\tilde{\alpha}\\ \tilde{\text{ɒ}}\end{Bmatrix}\right]$ /-N, occurred. The change would necessarily be phonetic because the conditioning context, a following N [m, n, ŋ] , remains, ie, the newly-developed phone(s) is/are (an) allophone(s) of the original phoneme. But, 'as long as the context for a sound change is maintained, the spelling need not alter' (Colman and Anderson (1983: 169)) - consider, eg, the Pre OE voicing of the originally voiceless fricatives [f], [θ], [s] in voiced contexts and their orthographic representation, (cf Campbell 1959: §444; Anderson 1988/ especially §2).

The man, hand, etc. forms, despite the retention of the conditioning environment, are, however, characterised by spelling variation. If a phonetic sound change were involved, the graph <a> could reasonably be expected to remain unchanged (cf also 3.2 above). On the other hand, the opinions held by Campbell, Kuhn and Hogg (cf 1.1 above) agree with the suggestion here of a phonetic sound change. If what Lass and Anderson say (cf 1.1) is considered, in conjunction with the implications of Sweet's (cf 1.1) and Hogg's comments on the <a> ~ <o> alternation, a reasonable compromise can be reached whereby the idea of a phonetic sound change having operated is acceptable and the spelling variation is explicable in terms of its output. An output of a low, back, rounded allophone [ɒ] of eOE /ɑ/ /-N would, to paraphrase Sweet's words, lie between [ɑ] and [o]; it would combine the [+ back] and [- high] features of both [ɑ] and [o] with the [+ round] feature of [o] and could therefore be identified by scribes with either the sound value [o] - resulting in the use of the relevant graph <o> - or with [ɑ] - resulting in the use of <a>. An output which alternated synchronically between, or consisted of (at least) two sub-phonemic variants, say [ɑ] and [ɒ] in free variation (ie, either could be substituted for the other /-N without producing a difference in meaning) would for the same reasons, and from the consideration that OE spelling was, on occasion, allophonic (cf Colman (1983)), be liable to be

pelt either with <a> or <o>. Furthermore, uncertainty over how to pell the reflex of Gmc /a/ /-N would perhaps be expected anyway, given ne traditional instability of vowels in the low, back area of the vowel pace, cf Anderson and Ewen (1987: ch 6). As Davidsen-Nielsen (1984: 15-6) oints out, in OE 'before nasals there is never more than a two-way contrast etween high and non-high vowels'. So, with the back vowels, if the vowel raph appearing before $<\left\{\begin{matrix}m\\n\end{matrix}\right\}$ (C)> is not <u> representing the high vowel, t is in theory unimportant whether <a> or <o> appears, or even both in the me MS, because the signification of either graph must be a non-high, rather an a high, vowel.

Either <a> or <o> could predominate depending upon two things:
) possibly upon the influence of individual scribes' phonetic realisations speech (or dictators' if the MS in question were dictated as, for instance, e OE content of some charters may reasonably be assumed to have been) - ough it would be a mistake to suppose, as Toon does, that these are always, even usually, what is represented by the spelling variation; or
) more probably, merely scribes' spelling preferences or habits. This suggested by, for example, the uniform use of <a> in the relevant context the 'Épinal Glossary' - see Pheifer (1974: $37) and by the post-tenth-century erall stabilisation of the spelling of the reflex(es) of Gmc /a/ /-N.
is regularisation was geographically, rather than phonologically, termined: <a> was the usually-favoured graph in the South, <o> in the rth, despite the fact that in Nb, in the lOE/eME period, the reflex(es) rged with other instances of lOE [ɑ] and not [o] (as the earlier use of <o> graph would suggest, cf Hogg MS: $5.5; Campbell 1959: $130, n 2). ides this, it is odd that the spelling was regularised when the phonetic riability, or indeterminacy with regard to height and roundedness, can rly be assumed to have continued because of the retention and influence the nasal environment. Moreover, the orthographic regularisation

involved the diatopic, synchronic use of two graphic constants and not one only: this does not favour the idea of a concomitant phonological regularisation. These factors suggest that the orthographic regularisation was the result of a conscious scribal decision to opt for, and standardise the use of, either <a> or <o> as the graph representing the reflex(es) of Gmc /a/ /-N.

5.3 Neutralisation

A third explanation for the spelling alternation, perhaps the most attractive because it is credible in relation to OE spelling practice and phonological plausibility (cf Hogg 1988:190) and it accommodates both variability and systematicity, is that the spelling variation arises from, and reflects, phonological neutralisation of the contrast between /ɑ/ and /o/ in the environment of a following N (on neutralisation see, eg, Lass 1984: ch 3), thus:

Figure 1 here (given overleaf)

In a neutralisation of type (a) - cf Lass (1984: 50), neither member of the opposition /ɑ/ ≠ /o/ appears as the alloarchiphone [my own term and notation[4] for the realisation or product of neutralisation], but instead a third, non-phonemic segment [[ɒ]] sharing properties of the others, viz, lowness with /a/, roundness with /o/ and backness with both. The alloarchiphone is, therefore, the product of the neutralisation /-N(C) of the feature contrasts <u>mid</u> vs <u>low</u> and <u>rounded</u> vs <u>unrounded</u>. Neutralisation in this context is proposed also by Davidsen-Nielsen (1984), although he describes it in terms only of suspension of the height contrast. The alloarchiphone could therefore be represented by either of the two graphs available to represent non-high, back vowels in the spelling: <o>, capturing specifically the feature [+ round] usually associated in OE spelling with

ither (a) -

honemes

rchiphoneme

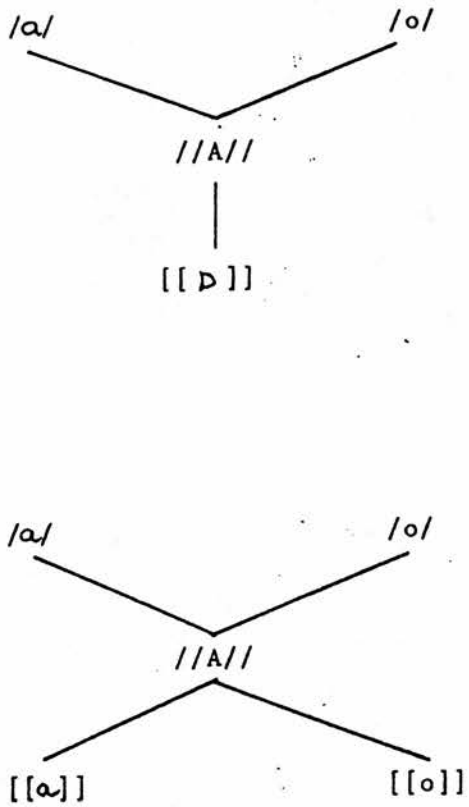
lloarchiphone

r (b) -

honemes

rchiphoneme

lloarchiphones



igure 1

[+ mid] and both <a> and <o>, the features [- high, + back], <a> being especially indicative of [- high].

In a neutralisation of type (b), either member of the phonemic opposition /ɑ/ ≠ /o/ can appear indifferently, without producing a difference in meaning in the neutralising /-N(C) environment. It therefore yields two alloarchiphones [[ɑ]] and [[o]] which vary with each other. The situation of neutralisation envisaged here would perhaps explain why both graphs <a> and <o> could be used to represent its products. This usage possibly derives from, or at least mirrors, that found elsewhere in OE to represent two vowels which are contrastive as in, eg, the minimal pairs (both Weak Class 2 Verb Infinitives): lafian 'to lave, bathe' ≠ lofian 'to praise' where the contrast /ɑ/ : <a> ≠ /o/ :<o> is illustrated. This means that, even though in words of the man, hand class where [[ɑ]] and [[o]] do not contrast since both occur /-N(C), because these sound values serve to distinguish meaning elsewhere as in words like lafian and lofian, they are recognisable and naturally identifiable or able to be correlated with the phonemes /ɑ/ and /o/. The alloarchiphones are accordingly treated orthographically in the same way as the sound values [ɑ] and [o] which are elsewhere phonemic, by being written with either of the two separate, distinct graphs <a> and <o> depending on the alloarchiphone produced by the neutralisation.

If neutralisation is accepted as the explanation for the pre-tenth-century spelling variation, the orthographic stabilisation which followed could accordingly reasonably be seen as a resolution of the neutralisation in favour of /o/ : <o> in the ME West Midlands and Northern areas and /ɑ/ : <a> elsewhere.

5.4 Conclusion

Consideration of the synchronic spelling variation manifested in pre-10thc forms of man, hand-type words has, first-of-all, shown that it is susceptible of a number of interpretations as to the corresponding synchronic phonological (or non-phonological) variation it reflects. It has, secondly, revealed the kinds of possible phonological (and non-phonological) variation that orthographic variation synchronic with it can indicate. These are:

(a) the output of previous phonemic sound change (cf 4.2);

(b) phonological or spelling analogy, or both (cf 5.1);

(c) the output of non-phonemic sound change (cf 5.2) - though diachronic (later and any extant earlier) spelling evidence would, strictly, also have to be taken into account before the phonological status of such sound changes could be determined. This consideration might also apply to (a); (cf 3.4);

d) synchronic sub-phonemic variation or synchronic phonological indeterminacy, coupled with inadequate orthographic resources (cf 5.2);

e) contemporary variations in pronunciation arising from politico-/sociolinguistic influence bringing about variable-rule-governed lexical diffusion of the output of a phonemic sound change (Toon's interpretation - cf above passim);

f) phonological neutralisation in a given phonetic environment of a contrast phonemic elsewhere.

f these possibilities, only (b) [applicable in some cases only though], c), (d) and (f) are acceptable explanations of this particular instance of pelling variation in that the linguistic viewpoints informing them are

in keeping with what is reasonably surmisable about OE phonology, both from the point-of-view of appropriate linguistic theory (or theories) and of what can credibly be deduced about OE spelling and MS-writing practice from the OE written data considered here.

Notes

* For Big Murn and wee Minnie

1. Charter MSS are here and throughout referred to by their listing number in Birch (1885-89), hence B154, eg, means the charter so numbered by, and in, Birch; cf also Toon (1983: 66-70) and cross-references there to Sweet (1885) and Kuhn (1943).

2. It should be noted that Toon prefixes an asterisk in his citation of B416 and B452 (his p 109) to indicate that the MSS they are written in contain 'Mercian letter-forms'; these MSS do not, in fact, have these letter-shapes - cf Kuhn (1943: 478-9, n 2). Since they have been included in the discussion just above, they will not be mentioned further here.

. This is a pertinent question given that we have OE data in, eg, the 'Erfurt Glossary' (MS Amplonianus F.42 in Erfurt Stadtbücherei) which was written by an 'Old High German scribe [who was] himself ignorant of Old English' (Toon p 73) and who 'consistently makes errors that could not be made by a speaker of Old English' (Toon p 100); on these 'errors' see Sweet (1885: 3-4). Toon, incidentally, uses data from this MS as evidence for his posited Mercian /l/ and Kentish /l/ sound change and its chronological progression.

. But see Anderson (1985) and cf. the suggestion - archiallophone - put forward by Roger Lass (personal communication). I am very grateful to both him and Fran Colman for comments made on the first draft of this paper.

References

Allen, W. S. 1965. Vox Latina: a guide to the pronunciation of Classical Latin. Cambridge: Cambridge University Press.

Anderson, J.M. 1985 The status of voiced fricatives in Old English, Folia Linguistica Historica V: 215-243.

Anderson, J. M. 1988(a) The great kEntish collapse. In Dieter Kastovsky and Gero Bauer (eds.) Luick Revisited 97-107. TÜbingen: Narr.

Blomfield, J. E. 1935. The origins of Old English orthography with special reference to the representation of spirants and w. B. Litt. thesis, unpublished. Oxford.

Bosworth, J and T. N. Toller 1898. An Anglo Saxon dictionary. Oxford: Oxford University Press. Supplement by Toller 1921; Addenda and corrigenda by A. Campbell 1972 both Oxford: Oxford University Press.

Brooks, N. 1984. The early history of the church of Canterbury; Christ Church from 597 to 1066. Leicester: Leicester University Press.

Campbell, A 1959 Old English grammar. Oxford: Clarendon Press.

Campbell, A. ed. 1973. Charters of Rochester. London: Oxford University Press for the British Academy.

Chadwick, H. M. 1894-1899. Studies in Old English. Transactions of the Cambridge Philological Society 4. 85-265.

Colman, F. 1983. Old English /ɑ/ ≠ /æ/ or [ɑ]~[æ]?. Folia Linguistica Historica IV/2. 265-85.

Colman, F. 1985. Old English ie: quid est?. Lingua 67. 1-23.

Colman, F. 1988. What is in a name?. In Jacek Fisiak (ed.) Historical Dialectology : Regional and social, 74-92. Amsterdam: Mouton de Gruyter.

Colman F. and J. M. Anderson 1983. Front Umlaut: a celebration of Second Fronting, i-Umlaut, life, food and sex. In Michael Davenport, Erik Hansen and Hans Frede Nielsen (eds.) Current topics in English historical linguistics 4, 165-190. Odense: Odense University Press.

Davidsen-Nielsen, N. 1984. Old English short vowels before nasals. In

N. F. Blake and C. Jones (eds.) English historical linguistics: studies in development, 12-23. Sheffield: CECTAL Conference Papers Series, No. 3.

Derwing, B., T. Nearey and M. Dow 1986. On the phoneme as the unit of the "second articulation". Phonology Yearbook 3. 45-69.

Ekwall, E. 1940. The concise Oxford dictionary of English place-names[2]. Oxford: Clarendon Press.

J. 1968. A short grammar of Middle English. Warszawa: Państwowe Wydawnictwo naukowe.

Hessels, J. H. 1906. A late eighth-century Latin-Anglo-Saxon glossary preserved in the library of the Leiden University. Cambridge: Cambridge University Press.

Hill, D. 1984. An atlas of Anglo-Saxon England. Oxford: Basil Blackwell.

Hogg, R. M. 1979. Old English palatalization. Transactions of the Philological Society. 89-113.

Hogg, R. M. 1982. Was there ever an /ƀ/-phoneme in Old English?. Neuphilologische Mitteilungen 83. 225-229.

Hogg, R. M. 1988. On the impossibility of Old English dialectology. In Dieter Kastovsky and Gero Bauer (eds.) Luick Revisited, 183-203. Tübingen: Narr).

Hogg, R. M. Old English grammar notes. MS.

Jones, D. 1967. The phoneme: its nature and use[3]. Cambridge: Cambridge University Press.

Keller, W. 1906. Angelsächsische Palaeographie (Palaestra xliii), 2 Volumes. Berlin.

King, A. 1988. The long and the short of it: Old English spelling and Old English vowels. Belgian Journal of Linguistics 3. 157-178.

Kuhn, S. 1939. The dialect of the Corpus Glossary. Publications of the Modern Language Association 54. 1-19.

Kuhn, S. 1943. The Vespasian Psalter and the Old English charter hands. Speculum 18. 458-483.

Kuhn, S. 1961. The syllabic phonemes of Old English. Language 37. 522-38.

Labov, W., M. Yaeger and R. Steiner 1972. A quantitative study of sound changes in progress. Philadelphia: The U.S. Regional Survey.

9. 392-40
R. 1973. Review of P.H. Reaney, The origin of English surnames. Foundations of Language /

Lass, R. 1976. Variation studies and historical linguistics. Language in Society 5. 219-29.

Lass, R. 1980. On explaining language change. Cambridge: Cambridge University Press.

Lass, R. 1984. Phonology: an introduction to basic concepts. Cambridge: Cambridge University Press.

Lass, R. and J. M. Anderson 1975. Old English phonology. Cambridge: Cambridge University Press.

Penzl, H. 1947. The phonemic split of Germanic k in Old English. Language 23. 34-42.

Pheifer, J. D. 1974. Old English glosses in the Épinal-Erfurt Glossary. Oxford: Clarendon Press.

Prins, A. A. 1974. A history of English phonemes from Indo-European to present-day English[2]. Leiden: Leiden University Press.

Romaine, S. 1982. Socio-historical linguistics. Cambridge: Cambridge University Press.

Stenton, F. M. 1971. Anglo-Saxon England[3]. Oxford: Clarendon Press.

Stockwell, R. P. and C. W. Barritt 1951. Some Old English graphemic correspondences: a , ea, a. Studies in Linguistics: Occasional Papers 4. Oklahoma: Battenburg Press.

Strang, B. M. H. 1970. A history of English. London: Methuen & Co. Ltd.

Sweet, H. ed. 1885. The Oldest English texts (Early English Text Society, Vol. 83). London: N. Trübner & Co.

Sweet, H. 1888. A history of English sounds from the earliest period[2].

Oxford: Clarendon Press.

Toon, T. E. 1983. The politics of early Old English sound change. New York: Academic Press, Inc..

Wallenberg, J. K. 1931. Kentish place-names: a topographical and etymological study of the place-name material in Kentish charters dated before the Conquest. Uppsala: A.-B. Lundequistska Bokhandeln.

Weinreich, U., W. Labov and M. I. Herzog 1968. Empirical foundations for a theory of language change. In Winfred P. Lehmann and Yakov Malkiel (eds.) Directions for historical linguistics: a symposium, 95-195. Austin: University of Texas Press.

INSERT THE FOLLOWING WHERE INDICATED ON p 38 (References) :

Anderson, J. M. 1988(b). The status of voiced fricatives in Old English. In John M. Anderson and Norman Macleod (eds.) Edinburgh Studies in the English language, 90-112. Edinburgh: John Donald Publishers Ltd.